



#8

SEQUENCE LISTING

<110> Makowski, Lee
Hyman, Paul
Williams, Mark

<120> STAGED ASSEMBLY OF NANOSTRUCTURES

<130> 8471-010-999

<140> 10/080,608
<141> 2002-02-21

<160> 180

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 28
<212> PRT
<213> *Saccharomyces cerevisiae*

<400> 1
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His Leu Glu Asn Glu Val Ala Arg Leu Lys Lys Leu
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<210> 2
<211> 28
<212> PRT
<213> Unknown

<220>
<223> Probable variant of homo sapiens protein.

<400> 2
Thr Asp Thr Leu Gln Ala Glu Thr Asp Gln Leu Glu Asp Glu Lys Tyr
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Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu
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<210> 3
<211> 28
<212> PRT
<213> Unknown

<220>
<223> Probable variant of homo sapiens protein.

<400> 3
Ala Ala Arg Leu Glu Glu Lys Val Lys Thr Leu Lys Ala Gln Asn Tyr
1 5 10 15
Glu Leu Ala Ser Thr Ala Asn Met Leu Arg Glu Gln
20 25

<210> 4
<211> 35
<212> PRT
<213> *Mus musculus*

<400> 4

Val Leu Glu Thr Gln His Lys Asn Glu Arg Leu Thr Ala Glu Val Glu
1 5 10 15
Gln Leu Gln Lys Lys Leu Ser Thr Leu Ser Arg Glu Phe Lys Gln Leu
20 25 30
Arg Asn Leu
35

<210> 5
<211> 35
<212> PRT
<213> Homo sapiens

<400> 5
Cys Lys Glu Leu Thr Gly Glu Asn Glu Ala Leu Glu Lys Lys Ala Asp
1 5 10 15
Ser Leu Lys Glu Arg Ile Gln Tyr Leu Ala Lys Glu Ile Glu Glu Val
20 25 30
Lys Asp Leu
35

<210> 6
<211> 33
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 33
<223> Xaa = Any Amino Acid

<400> 6
Cys Gly Gly Val Gln Ala Glu Glu Gln Lys Leu Ile Ser Glu Glu Asp
1 5 10 15
Leu Leu Arg Lys Arg Arg Glu Gln Leu Lys His Lys Leu Glu Gln Leu
20 25 30
Xaa

<210> 7
<211> 33
<212> PRT
<213> Mus musculus

<220>
<221> VARIANT
<222> 33
<223> Xaa = Any Amino Acid

<400> 7
Cys Gly Gly Met Arg Arg Lys Asn Asp Thr His Gln Gln Asp Ile Asp
1 5 10 15
Asp Leu Lys Arg Gln Asn Ala Leu Leu Glu Gln Gln Val Arg Ala Leu
20 25 30
Xaa

<210> 8
<211> 32
<212> PRT
<213> Unknown

<220>

<223> Probable variant of Mus musculus protein

<400> 8

Val	Lys	Ser	Leu	Glu	Asn	Arg	Val	Ala	Val	Leu	Glu	Asn	Gln	Asn	Lys
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Thr	Leu	Ile	Glu	Glu	Leu	Lys	Ala	Leu	Lys	Asp	Leu	Tyr	Ser	His	Lys
				20					25					30	

<210> 9

<211> 33

<212> PRT

<213> Schizosaccharomyces pombe

<400> 9

Val	Val	Thr	Leu	Lys	Glu	Leu	His	Ser	Ser	Thr	Thr	Leu	Glu	Asn	Asp
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Gln	Leu	Arg	Gln	Lys	Val	Arg	Gln	Leu	Glu	Glu	Glu	Leu	Arg	Ile	Leu
				20				25				30			
Lys															

<210> 10

<211> 885

<212> PRT

<213> Mus musculus

<400> 10

Met	Glu	Ile	Gly	Val	Ser	Val	Ala	Glu	Cys	Lys	Ser	Val	Pro	Gly	Val
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Thr	Ser	Thr	Pro	His	Ser	Lys	Asp	His	Ser	Ser	Pro	Phe	Tyr	Ser	Pro
				20				25				30			
Ser	His	Asn	Gly	Leu	Leu	Ala	Asp	His	His	Glu	Ser	Leu	Asp	Asn	Asp
				35				40			45				
Val	Ala	Arg	Glu	Ile	Gln	Tyr	Leu	Asp	Glu	Val	Leu	Glu	Ala	Asn	Cys
				50			55			60					
Cys	Asp	Ser	Ser	Val	Asp	Gly	Thr	Tyr	Asn	Gly	Ile	Ser	Ser	Pro	Glu
				65			70			75				80	
Pro	Gly	Ala	Ala	Ile	Leu	Val	Ser	Ser	Leu	Gly	Ser	Pro	Ala	His	Ser
				85				90			95				
Val	Thr	Glu	Ala	Glu	Pro	Thr	Glu	Lys	Ala	Ser	Gly	Arg	Gln	Val	Pro
				100			105			110					
Pro	His	Ile	Glu	Leu	Ser	Arg	Ile	Pro	Ser	Asp	Arg	Met	Ala	Glu	Gly
				115			120			125					
Glu	Arg	Ala	Asn	Gly	His	Ser	Thr	Asp	Gln	Pro	Gln	Asp	Leu	Leu	Gly
				130			135			140					
Asn	Ser	Leu	Gln	Ala	Pro	Ala	Ser	Pro	Ser	Ser	Thr	Ser	Ser	His	
				145			150			155				160	
Cys	Ser	Ser	Arg	Asp	Gly	Glu	Phe	Thr	Leu	Thr	Thr	Leu	Lys	Lys	Glu
				165			170			175					
Ala	Lys	Phe	Glu	Leu	Arg	Ala	Phe	His	Glu	Asp	Lys	Lys	Pro	Ser	Lys
				180			185			190					
Leu	Phe	Glu	Glu	Asp	Glu	Arg	Glu	Lys	Glu	Gln	Phe	Cys	Val	Arg	Lys
				195			200			205					
Val	Arg	Pro	Ser	Glu	Glu	Met	Ile	Glu	Leu	Glu	Lys	Glu	Arg	Arg	Glu
				210			215			220					
Leu	Ile	Arg	Ser	Gln	Ala	Val	Lys	Lys	Asn	Pro	Gly	Ile	Ala	Ala	Lys
				225			230			235				240	
Trp	Trp	Asn	Pro	Pro	Gln	Glu	Lys	Thr	Ile	Glu	Glu	Gln	Leu	Asp	Glu
				245			250			255					
Glu	His	Leu	Glu	Ser	His	Arg	Arg	Tyr	Lys	Glu	Arg	Lys	Glu	Lys	Arg
				260			265			270					
Ala	Gln	Gln	Glu	Gln	Leu	Gln	Leu								

275	280	285
Gln	Gln	Gln
Gln	Gln	Gln
Leu	Gln	Gln
Gln	Gln	Gln
Gln	Gln	Gln
290	295	300
Gln	Gln	Gln
Leu	Gln	Ser
Gln	Gln	Thr
305	310	315
Pro	Ala	Cys
Ala	Ala	Thr
His	His	Lys
His	Leu	Asp
Gly	Ile	Glu
Ile	Glu	His
Asp	Gly	Thr
325	330	335
Val	Val	Arg
Thr	Glu	Lys
Gln	Ile	Gln
Asp	Phe	Phe
Ser	Ala	Ala
Ala	Arg	Gly
Arg	lys	Gln
340	345	350
Leu	Met	Gly
Glu	Asn	Gly
Ser	Arg	Gln
355	360	365
Arg	Leu	Phe
Phe	Ser	Ile
Ile	Lys	Pro
Tyr	Tyr	Tyr
370	375	380
Ser	Asp	Lys
Pro	Pro	Thr
Ile	Leu	Arg
Arg	Pro	Ala
385	390	395
Leu	Glu	Gly
Asp	Gly	Gly
Gly	Thr	Gln
Ala	Ala	Lys
405	410	415
Val	Ser	Glu
Ser	Gln	Ser
Ala	Ser	Gly
Gly	Ala	Gly
420	425	430
Gln	Gly	Lys
Glu	Gly	Pro
Tyr	Ser	Glu
435	440	445
Ser	Lys	Leu
Trp	Ala	Glu
Asp	Gly	Glu
Gly	Phe	Thr
450	455	460
Leu	Thr	Val
Val	Lys	Asp
Glu	Asp	His
His	Gly	Ile
Ile	Leu	Asp
Asp	Gly	Gln
465	470	475
Arg	Ser	Val
Val	Asn	Ser
Leu	Thr	Gln
Glu	Glu	Glu
485	490	495
Asp	Glu	Leu
Leu	Ser	Val
Arg	Ser	Gln
Gly	Asp	Asp
500	505	510
Ser	Asn	Asp
Phe	Ser	Met
Asp	Asn	Ile
Asn	Ile	Ser
515	520	525
Glu	Thr	Thr
Ser	Ala	Leu
Gln	Glu	Asn
Gly	Ser	Ser
530	535	540
Pro	Gln	Thr
Thr	Pro	Gln
Asp	Asn	Pro
Asn	Pro	Ser
545	550	555
Ser	Lys	Ser
Phe	Ser	Asp
His	Gly	Phe
Gly	Tyr	Ser
565	570	575
Gly	Asp	Ser
Asp	Pro	Ser
Val	Asp	Asp
Asp	Pro	Leu
Pro	Leu	Glu
580	585	590
Leu	Val	Gln
Gln	Asn	Ala
Ala	Ile	Gln
Gln	Gln	Ala
595	600	605
Ala	Glu	Ala
Ala	His	Thr
Ser	Lys	Glu
Gly	Ser	Glu
610	615	620
Ala	Thr	Val
Glu	Glu	Ala
Ala	Gly	Ser
Gly	Ser	Gln
625	630	635
Gln	Gly	Met
Phe	Ala	Pro
Ala	Pro	Pro
Gln	Val	Ser
645	650	655
Arg	Asp	Ile
Ile	Leu	Pro
Lys	Asn	Leu
Asn	Leu	Pro
660	665	670
Glu	Lys	Gly
Pro	Ser	Gln
675	680	685
Val	Asn	Met
Glu	Glu	Thr
690	695	700
Ser	Glu	Ala
Ala	Glu	Leu
Glu	Arg	Ser
705	710	715
Glu	Ser	Asp
Asp	Val	Met
725	730	735
Arg	Thr	Leu
Leu	Ser	Met
Ile	Glu	Glu
Glu	Ile	Arg
740	745	750
Glu	Glu	Leu
Lys	Arg	Gln
755	760	765
Pro	Arg	Ala
Ala	Lys	Asn
Asn	Ala	Pro
Ser	Leu	Pro
Arg	Thr	Cys
		Tyr

770	775	780
Lys Thr Ala Pro Gly Lys Ile Glu Lys Val Lys	Pro Pro Pro Ser Pro	
785	790	795
Thr Thr Glu Gly Pro Ser Leu Gln Pro Asp Leu Ala Pro	Glu Glu Ala	800
805	810	815
Ala Gly Thr Gln Arg Pro Lys Asn Leu Met Gln Thr Leu Met	Glu Asp	
820	825	830
Tyr Glu Thr His Lys Ser Lys Arg Arg Glu Arg Met Asp Asp Ser Ser		
835	840	845
Tyr Thr Ser Lys Leu Leu Ser Cys Lys Val Thr Ser Glu Val Leu Glu		
850	855	860
Ala Thr Arg Val Asn Arg Arg Lys Ser Ala Ser Gly Leu Ala Leu Gly		
865	870	875
Gly Arg Asp Leu Arg		880
	885	

<210> 11
<211> 3878
<212> PRT
<213> Homo sapiens

<400> 11	1	15
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Ile Glu Glu Leu Ser Leu Ala Phe Leu Val Arg Gln Leu Ala Gln Phe	20	25
Arg Gln Arg Lys Ala Gln Ser Asp Gly Gln Ser Pro Ser Lys Lys Gln	35	40
Lys Lys Lys Arg Lys Thr Ser Ser Ser Lys His Asp Val Ser Ala His	50	55
His Asp Leu Asn Ile Asp Gln Ser Gln Cys Asn Glu Met Tyr Ile Asn	65	70
Ser Ser Gln Arg Val Glu Ser Thr Val Ile Pro Glu Ser Thr Ile Met	85	90
Arg Thr Leu His Ser Gly Glu Ile Thr Ser His Glu Gln Gly Phe Ser	100	105
Val Glu Leu Glu Ser Glu Ile Ser Thr Thr Ala Asp Asp Cys Ser Ser	115	120
Glu Val Asn Gly Cys Ser Phe Val Met Arg Thr Gly Lys Pro Thr Asn	130	135
Leu Leu Arg Glu Glu Glu Phe Gly Val Asp Asp Ser Tyr Ser Glu Gln	145	150
Gly Ala Gln Asp Ser Pro Thr His Leu Glu Met Met Glu Ser Glu Leu	165	170
Ala Gly Lys Gln His Glu Ile Glu Glu Leu Asn Arg Glu Leu Glu Glu	180	185
Met Arg Val Thr Tyr Gly Thr Glu Gly Leu Gln Gln Leu Gln Glu Phe	195	200
Glu Ala Ala Ile Lys Gln Arg Asp Gly Ile Ile Thr Gln Leu Thr Ala	210	215
Asn Leu Gln Gln Ala Arg Arg Glu Lys Asp Glu Thr Met Arg Glu Phe	225	230
Leu Glu Leu Thr Glu Gln Ser Gln Lys Leu Gln Ile Gln Phe Gln Gln	245	250
Leu Gln Ala Ser Glu Thr Leu Arg Asn Ser Thr His Ser Ser Thr Ala	260	265
Ala Asp Leu Leu Gln Ala Lys Gln Gln Ile Leu Thr His Gln Gln Gln	275	280
Leu Glu Glu Gln Asp His Leu Leu Glu Asp Tyr Gln Lys Lys Lys Glu	290	295
Asp Phe Thr Met Gln Ile Ser Phe Leu Gln Glu Lys Ile Lys Val Tyr	305	310
	315	320

Glu Met Glu Gln Asp Lys Lys Val Glu Asn Ser Asn Lys Glu Glu Ile
 325 330 335
 Gln Glu Lys Glu Thr Ile Ile Glu Glu Leu Asn Thr Lys Ile Ile Glu
 340 345 350
 Glu Glu Lys Lys Thr Leu Glu Leu Lys Asp Lys Leu Thr Thr Ala Asp
 355 360 365
 Lys Leu Leu Gly Glu Leu Gln Glu Gln Ile Val Gln Lys Asn Gln Glu
 370 375 380
 Ile Lys Asn Met Lys Leu Glu Leu Thr Asn Ser Lys Gln Lys Glu Arg
 385 390 395 400
 Gln Ser Ser Glu Glu Ile Lys Gln Leu Met Gly Thr Val Glu Glu Leu
 405 410 415
 Gln Lys Arg Asn His Lys Asp Ser Gln Phe Glu Thr Asp Ile Val Gln
 420 425 430
 Arg Met Glu Gln Glu Thr Gln Arg Lys Leu Glu Gln Leu Arg Ala Glu
 435 440 445
 Leu Asp Glu Met Tyr Gly Gln Gln Ile Val Gln Met Lys Gln Glu Leu
 450 455 460
 Ile Arg Gln His Met Ala Gln Met Glu Glu Met Lys Thr Arg His Lys
 465 470 475 480
 Gly Glu Met Glu Asn Ala Leu Arg Ser Tyr Ser Asn Ile Thr Val Asn
 485 490 495
 Glu Asp Gln Ile Lys Leu Met Asn Val Ala Ile Asn Glu Leu Asn Ile
 500 505 510
 Lys Leu Gln Asp Thr Asn Ser Gln Lys Glu Lys Leu Lys Glu Glu Leu
 515 520 525
 Gly Leu Ile Leu Glu Glu Lys Cys Ala Leu Gln Arg Gln Leu Glu Asp
 530 535 540
 Leu Val Glu Glu Leu Ser Phe Ser Arg Glu Gln Ile Gln Arg Ala Arg
 545 550 555 560
 Gln Thr Ile Ala Glu Gln Glu Ser Lys Leu Asn Glu Ala His Lys Ser
 565 570 575
 Leu Ser Thr Val Glu Asp Leu Lys Ala Glu Ile Val Ser Ala Ser Glu
 580 585 590
 Ser Arg Lys Glu Leu Glu Leu Lys His Glu Ala Glu Val Thr Asn Tyr
 595 600 605
 Lys Ile Lys Leu Glu Met Leu Glu Lys Glu Lys Asn Ala Val Leu Asp
 610 615 620
 Arg Met Ala Glu Ser Gln Glu Ala Glu Leu Glu Arg Leu Arg Thr Gln
 625 630 635 640
 Leu Leu Phe Ser His Glu Glu Glu Leu Ser Lys Leu Lys Glu Asp Leu
 645 650 655
 Glu Ile Glu His Arg Ile Asn Ile Glu Lys Leu Lys Asp Asn Leu Gly
 660 665 670
 Ile His Tyr Lys Gln Gln Ile Asp Gly Leu Gln Asn Glu Met Ser Gln
 675 680 685
 Lys Ile Glu Thr Met Gln Phe Glu Lys Asp Asn Leu Ile Thr Lys Gln
 690 695 700
 Asn Gln Leu Ile Leu Glu Ile Ser Lys Leu Lys Asp Leu Gln Gln Ser
 705 710 715 720
 Leu Val Asn Ser Lys Ser Glu Glu Met Thr Leu Gln Ile Asn Glu Leu
 725 730 735
 Gln Lys Glu Ile Glu Ile Leu Arg Gln Glu Glu Lys Glu Lys Gly Thr
 740 745 750
 Leu Glu Gln Glu Val Gln Glu Leu Gln Leu Lys Thr Glu Leu Leu Glu
 755 760 765
 Lys Gln Met Lys Glu Lys Glu Asn Asp Leu Gln Glu Lys Phe Ala Gln
 770 775 780
 Leu Glu Ala Glu Asn Ser Ile Leu Lys Asp Glu Lys Lys Thr Leu Glu
 785 790 795 800
 Asp Met Leu Lys Ile His Thr Pro Val Ser Gln Glu Glu Arg Leu Ile
 805 810 815

Phe Leu Asp Ser Ile Lys Ser Lys Ser Lys Asp Ser Val Trp Glu Lys
 820 825 830
 Glu Ile Glu Ile Leu Ile Glu Glu Asn Glu Asp Leu Lys Gln Gln Cys
 835 840 845
 Ile Gln Leu Asn Glu Glu Ile Glu Lys Gln Arg Asn Thr Phe Ser Phe
 850 855 860
 Ala Glu Lys Asn Phe Glu Val Asn Tyr Gln Glu Leu Gln Glu Glu Tyr
 865 870 875 880
 Ala Cys Leu Leu Lys Val Lys Asp Asp Leu Glu Asp Ser Lys Asn Lys
 885 890 895
 Gln Glu Leu Glu Tyr Lys Ser Lys Leu Lys Ala Leu Asn Glu Glu Leu
 900 905 910
 His Leu Gln Arg Ile Asn Pro Thr Thr Val Lys Met Lys Ser Ser Val
 915 920 925
 Phe Asp Glu Asp Lys Thr Phe Val Ala Glu Thr Leu Glu Met Gly Glu
 930 935 940
 Val Val Glu Lys Asp Thr Thr Glu Leu Met Glu Lys Leu Glu Val Thr
 945 950 955 960
 Lys Arg Glu Lys Leu Glu Leu Ser Gln Arg Leu Ser Asp Leu Ser Glu
 965 970 975
 Gln Leu Lys Gln Lys His Gly Glu Ile Ser Phe Leu Asn Glu Glu Val
 980 985 990
 Lys Ser Leu Lys Gln Glu Lys Glu Gln Val Ser Leu Arg Cys Arg Glu
 995 1000 1005
 Leu Glu Ile Ile Ile Asn His Asn Arg Ala Glu Asn Val Gln Ser Cys
 1010 1015 1020
 Asp Thr Gln Val Ser Ser Leu Leu Asp Gly Val Val Thr Met Thr Ser
 1025 1030 1035 1040
 Arg Gly Ala Glu Gly Ser Val Ser Lys Val Asn Lys Ser Phe Gly Glu
 1045 1050 1055
 Glu Ser Lys Ile Met Val Glu Asp Lys Val Ser Phe Glu Asn Met Thr
 1060 1065 1070
 Val Gly Glu Glu Ser Lys Gln Glu Gln Leu Ile Leu Asp His Leu Pro
 1075 1080 1085
 Ser Val Thr Lys Glu Ser Ser Leu Arg Ala Thr Gln Pro Ser Glu Asn
 1090 1095 1100
 Asp Lys Leu Gln Lys Glu Leu Asn Val Leu Lys Ser Glu Gln Asn Asp
 1105 1110 1115 1120
 Leu Arg Leu Gln Met Glu Ala Gln Arg Ile Cys Leu Ser Leu Val Tyr
 1125 1130 1135
 Ser Thr His Val Asp Gln Val Arg Glu Tyr Met Glu Asn Glu Lys Asp
 1140 1145 1150
 Lys Ala Leu Cys Ser Leu Lys Glu Glu Leu Ile Phe Ala Gln Glu Glu
 1155 1160 1165
 Lys Ile Lys Glu Leu Gln Lys Ile His Gln Leu Glu Leu Gln Thr Met
 1170 1175 1180
 Lys Thr Gln Glu Thr Gly Asp Glu Gly Lys Pro Leu His Leu Leu Ile
 1185 1190 1195 1200
 Gly Lys Leu Gln Lys Ala Val Ser Glu Glu Cys Ser Tyr Phe Leu Gln
 1205 1210 1215
 Thr Leu Cys Ser Val Leu Gly Glu Tyr Tyr Thr Pro Ala Leu Lys Cys
 1220 1225 1230
 Glu Val Asn Ala Glu Asp Lys Glu Asn Ser Gly Asp Tyr Ile Ser Glu
 1235 1240 1245
 Asn Glu Asp Pro Glu Leu Gln Asp Tyr Arg Tyr Glu Val Gln Asp Phe
 1250 1255 1260
 Gln Glu Asn Met His Thr Leu Leu Asn Lys Val Thr Glu Glu Tyr Asn
 1265 1270 1275 1280
 Lys Leu Leu Val Leu Gln Thr Arg Leu Ser Lys Ile Trp Gly Gln Gln
 1285 1290 1295
 Thr Asp Gly Met Lys Leu Glu Phe Gly Glu Glu Asn Leu Pro Lys Glu
 1300 1305 1310

Glu Thr Glu Phe Leu Ser Ile His Ser Gln Met Thr Asn Leu Glu Asp
 1315 1320 1325
 Ile Asp Val Asn His Lys Ser Lys Leu Ser Ser Leu Gln Asp Leu Glu
 1330 1335 1340
 Lys Thr Lys Leu Glu Glu Gln Val Gln Glu Leu Glu Ser Leu Ile Ser
 1345 1350 1355 1360
 Ser Leu Gln Gln Leu Lys Glu Thr Glu Gln Asn Tyr Glu Ala Glu
 1365 1370 1375
 Ile His Cys Leu Gln Lys Arg Leu Gln Ala Val Ser Glu Ser Thr Val
 1380 1385 1390
 Pro Pro Ser Leu Pro Val Asp Ser Val Val Ile Thr Glu Ser Asp Ala
 1395 1400 1405
 Gln Arg Thr Met Tyr Pro Gly Ser Cys Val Lys Lys Asn Ile Asp Gly
 1410 1415 1420
 Thr Ile Glu Phe Ser Gly Glu Phe Gly Val Lys Glu Glu Thr Asn Ile
 1425 1430 1435 1440
 Val Lys Leu Leu Glu Lys Gln Tyr Gln Glu Gln Leu Glu Glu Val
 1445 1450 1455
 Ala Lys Val Ile Val Ser Met Ser Ile Ala Phe Ala Gln Gln Thr Glu
 1460 1465 1470
 Leu Ser Arg Ile Ser Gly Gly Lys Glu Asn Thr Ala Ser Ser Lys Gln
 1475 1480 1485
 Ala His Ala Val Cys Gln Gln Glu Gln His Tyr Phe Asn Glu Met Lys
 1490 1495 1500
 Leu Ser Gln Asp Gln Ile Gly Phe Gln Thr Phe Glu Thr Val Asp Val
 1505 1510 1515 1520
 Lys Phe Lys Glu Glu Phe Lys Pro Leu Ser Lys Glu Leu Gly Glu His
 1525 1530 1535
 Gly Lys Glu Ile Leu Leu Ser Asn Ser Asp Pro His Asp Ile Pro Glu
 1540 1545 1550
 Ser Lys Asp Cys Val Leu Thr Ile Ser Glu Glu Met Phe Ser Lys Asp
 1555 1560 1565
 Lys Thr Phe Ile Val Arg Gln Ser Ile His Asp Glu Ile Ser Val Ser
 1570 1575 1580
 Ser Met Asp Ala Ser Arg Gln Leu Met Leu Asn Glu Glu Gln Leu Glu
 1585 1590 1595 1600
 Asp Met Arg Gln Glu Leu Val Arg Gln Tyr Gln Glu His Gln Gln Ala
 1605 1610 1615
 Thr Gln Arg Ser Ser Ile Asp Asn Glu Asn Leu Val Ser Glu Arg Glu
 1620 1625 1630
 Arg Val Leu Leu Glu Glu Leu Glu Ala Leu Lys Gln Leu Ser Leu Ala
 1635 1640 1645
 Gly Arg Glu Lys Leu Cys Cys Glu Leu Arg Asn Ser Ser Thr Gln Thr
 1650 1655 1660
 Gln Asn Gly Asn Glu Asn Gln Gly Glu Val Glu Glu Gln Thr Phe Lys
 1665 1670 1675 1680
 Glu Lys Glu Leu Asp Arg Lys Pro Glu Asp Val Pro Pro Glu Ile Leu
 1685 1690 1695
 Ser Asn Glu Arg Tyr Ala Leu Gln Lys Ala Asn Asn Arg Leu Leu Lys
 1700 1705 1710
 Ile Leu Leu Glu Val Val Lys Thr Thr Ala Ala Val Glu Glu Thr Ile
 1715 1720 1725
 Gly Arg His Val Leu Gly Ile Leu Asp Arg Ser Ser Lys Ser Gln Ser
 1730 1735 1740
 Ser Ala Ser Leu Ile Trp Arg Ser Glu Ala Glu Ala Ser Val Lys Ser
 1745 1750 1755 1760
 Cys Val His Glu Glu His Thr Arg Val Thr Asp Glu Ser Ile Pro Ser
 1765 1770 1775
 Tyr Ser Gly Ser Asp Met Pro Arg Asn Asp Ile Asn Met Trp Ser Lys
 1780 1785 1790
 Val Thr Glu Glu Gly Thr Glu Leu Ser Gln Arg Leu Val Arg Ser Gly
 1795 1800 1805

Phe Ala Gly Thr Glu Ile Asp Pro Glu Asn Glu Glu Leu Met Leu Asn
 1810 1815 1820
 Ile Ser Ser Arg Leu Gln Ala Ala Val Glu Lys Leu Leu Glu Ala Ile
 1825 1830 1835 1840
 Ser Glu Thr Ser Ser Gln Leu Glu His Ala Lys Val Thr Gln Thr Glu
 1845 1850 1855
 Leu Met Arg Glu Ser Phe Arg Gln Lys Gln Glu Ala Thr Glu Ser Leu
 1860 1865 1870
 Lys Cys Gln Glu Glu Leu Arg Glu Arg Leu His Glu Glu Ser Arg Ala
 1875 1880 1885
 Arg Glu Gln Leu Ala Val Glu Leu Ser Lys Ala Glu Gly Val Ile Asp
 1890 1895 1900
 Gly Tyr Ala Asp Glu Lys Thr Leu Phe Glu Arg Gln Ile Gln Glu Lys
 1905 1910 1915 1920
 Thr Asp Ile Ile Asp Arg Leu Glu Gln Glu Leu Leu Cys Ala Ser Asn
 1925 1930 1935
 Arg Leu Gln Glu Leu Glu Ala Glu Gln Gln Ile Gln Glu Glu Arg
 1940 1945 1950
 Glu Leu Leu Ser Arg Gln Lys Glu Ala Met Lys Ala Glu Ala Gly Pro
 1955 1960 1965
 Val Glu Gln Gln Leu Leu Gln Glu Thr Glu Lys Leu Met Lys Glu Lys
 1970 1975 1980
 Leu Glu Val Gln Cys Gln Ala Glu Lys Val Arg Asp Asp Leu Gln Lys
 1985 1990 1995 2000
 Gln Val Lys Ala Leu Glu Ile Asp Val Glu Glu Gln Val Ser Arg Phe
 2005 2010 2015
 Ile Glu Leu Glu Gln Glu Lys Asn Thr Glu Leu Met Asp Leu Arg Gln
 2020 2025 2030
 Gln Asn Gln Ala Leu Glu Lys Gln Leu Glu Lys Met Arg Lys Phe Leu
 2035 2040 2045
 Asp Glu Gln Ala Ile Asp Arg Glu His Glu Arg Asp Val Phe Gln Gln
 2050 2055 2060
 Glu Ile Gln Lys Leu Glu Gln Gln Leu Lys Val Val Pro Arg Phe Gln
 2065 2070 2075 2080
 Pro Ile Ser Glu His Gln Thr Arg Glu Val Glu Gln Leu Ala Asn His
 2085 2090 2095
 Leu Lys Glu Lys Thr Asp Lys Cys Ser Glu Leu Leu Leu Ser Lys Glu
 2100 2105 2110
 Gln Leu Gln Arg Asp Ile Gln Glu Arg Asn Glu Glu Ile Glu Lys Leu
 2115 2120 2125
 Glu Phe Arg Val Arg Glu Leu Glu Gln Ala Leu Leu Val Ser Ala Asp
 2130 2135 2140
 Thr Phe Gln Lys Val Glu Asp Arg Lys His Phe Gly Ala Val Glu Ala
 2145 2150 2155 2160
 Lys Pro Glu Leu Ser Leu Glu Val Gln Leu Gln Ala Glu Arg Asp Ala
 2165 2170 2175
 Ile Asp Arg Lys Glu Lys Glu Ile Thr Asn Leu Glu Glu Gln Leu Glu
 2180 2185 2190
 Gln Phe Arg Glu Glu Leu Glu Asn Lys Asn Glu Glu Val Gln Gln Leu
 2195 2200 2205
 His Met Gln Leu Glu Ile Gln Lys Lys Glu Ser Thr Thr Arg Leu Gln
 2210 2215 2220
 Glu Leu Glu Gln Glu Asn Lys Leu Phe Lys Asp Asp Met Glu Lys Leu
 2225 2230 2235 2240
 Gly Leu Ala Ile Lys Glu Ser Asp Ala Met Ser Thr Gln Asp Gln His
 2245 2250 2255
 Val Leu Phe Gly Lys Phe Ala Gln Ile Ile Glu Lys Glu Val Glu
 2260 2265 2270
 Ile Asp Gln Leu Asn Glu Gln Val Thr Lys Leu Gln Gln Leu Lys
 2275 2280 2285
 Ile Thr Thr Asp Asn Lys Val Ile Glu Glu Lys Asn Glu Leu Ile Arg
 2290 2295 2300

Asp Leu Glu Thr Gln Ile Glu Cys Leu Met Ser Asp Gln Glu Cys Val
 2305 2310 2315 2320
 Lys Arg Asn Arg Glu Glu Glu Ile Glu Gln Leu Asn Glu Val Ile Glu
 2325 2330 2335
 Lys Leu Gln Gln Glu Leu Ala Asn Ile Gly Gln Lys Thr Ser Met Asn
 2340 2345 2350
 Ala His Ser Leu Ser Glu Glu Ala Asp Ser Leu Lys His Gln Leu Asp
 2355 2360 2365
 Val Val Ile Ala Glu Lys Leu Ala Leu Glu Gln Gln Val Glu Thr Ala
 2370 2375 2380
 Asn Glu Glu Met Thr Phe Met Lys Asn Val Leu Lys Glu Thr Asn Phe
 2385 2390 2395 2400
 Lys Met Asn Gln Leu Thr Gln Glu Leu Phe Ser Leu Lys Arg Glu Arg
 2405 2410 2415
 Glu Ser Val Glu Lys Ile Gln Ser Ile Pro Glu Asn Ser Val Asn Val
 2420 2425 2430
 Ala Ile Asp His Leu Ser Lys Asp Lys Pro Glu Leu Glu Val Val Leu
 2435 2440 2445
 Thr Glu Asp Ala Leu Lys Ser Leu Glu Asn Gln Thr Tyr Phe Lys Ser
 2450 2455 2460
 Phe Glu Glu Asn Gly Lys Gly Ser Ile Ile Asn Leu Glu Thr Arg Leu
 2465 2470 2475 2480
 Leu Gln Leu Glu Ser Thr Val Ser Ala Lys Asp Leu Glu Leu Thr Gln
 2485 2490 2495
 Cys Tyr Lys Gln Ile Lys Asp Met Gln Glu Gln Gly Gln Phe Glu Thr
 2500 2505 2510
 Glu Met Leu Gln Lys Lys Ile Val Asn Leu Gln Lys Ile Val Glu Glu
 2515 2520 2525
 Lys Val Ala Ala Ala Leu Val Ser Gln Ile Gln Leu Glu Ala Val Gln
 2530 2535 2540
 Glu Tyr Ala Lys Phe Cys Gln Asp Asn Gln Thr Ile Ser Ser Glu Pro
 2545 2550 2555 2560
 Glu Arg Thr Asn Ile Gln Asn Leu Asn Gln Leu Arg Glu Asp Glu Leu
 2565 2570 2575
 Gly Ser Asp Ile Ser Ala Leu Thr Leu Arg Ile Ser Glu Leu Glu Ser
 2580 2585 2590
 Gln Val Val Glu Met His Thr Ser Leu Ile Leu Glu Lys Glu Gln Val
 2595 2600 2605
 Glu Ile Ala Glu Lys Asn Val Leu Glu Lys Glu Lys Lys Leu Leu Glu
 2610 2615 2620
 Leu Gln Lys Leu Leu Glu Gly Asn Glu Lys Lys Gln Arg Glu Lys Glu
 2625 2630 2635 2640
 Lys Lys Arg Ser Pro Gln Asp Val Glu Val Leu Lys Thr Thr Glu
 2645 2650 2655
 Leu Phe His Ser Asn Glu Glu Ser Gly Phe Phe Asn Glu Leu Glu Ala
 2660 2665 2670
 Leu Arg Ala Glu Ser Val Ala Thr Lys Ala Glu Leu Ala Ser Tyr Lys
 2675 2680 2685
 Glu Lys Ala Glu Lys Leu Gln Glu Glu Leu Leu Val Lys Glu Thr Asn
 2690 2695 2700
 Met Thr Ser Leu Gln Lys Asp Leu Ser Gln Val Arg Asp His Leu Ala
 2705 2710 2715 2720
 Glu Ala Lys Glu Lys Leu Ser Ile Leu Glu Lys Glu Asp Glu Thr Glu
 2725 2730 2735
 Val Gln Glu Ser Lys Lys Ala Cys Met Phe Glu Pro Leu Pro Ile Lys
 2740 2745 2750
 Leu Ser Lys Ser Ile Ala Ser Gln Thr Asp Gly Thr Leu Lys Ile Ser
 2755 2760 2765
 Ser Ser Asn Gln Thr Pro Gln Ile Leu Val Lys Asn Ala Gly Ile Gln
 2770 2775 2780
 Ile Asn Leu Gln Ser Glu Cys Ser Ser Glu Glu Val Thr Glu Ile Ile
 2785 2790 2795 2800

Ser Gln Phe Thr Glu Lys Ile Glu Lys Met Gln Glu Leu His Ala Ala
 2805 2810 2815
 Glu Ile Leu Asp Met Glu Ser Arg His Ile Ser Glu Thr Glu Thr Leu
 2820 2825 2830
 Lys Arg Glu His Tyr Val Ala Val Gln Leu Leu Lys Glu Glu Cys Gly
 2835 2840 2845
 Thr Leu Lys Ala Val Ile Gln Cys Leu Arg Ser Lys Glu Val Phe Gly
 2850 2855 2860
 Phe Tyr Asn Met Cys Phe Ser Thr Leu Cys Asp Ser Gly Ser Asp Trp
 2865 2870 2875 2880
 Gly Gln Gly Ile Tyr Leu Thr His Ser Gln Gly Phe Asp Ile Ala Ser
 2885 2890 2895
 Glu Gly Arg Gly Glu Glu Ser Glu Ser Ala Thr Asp Ser Phe Pro Lys
 2900 2905 2910
 Lys Ile Lys Gly Leu Leu Arg Ala Val His Asn Glu Gly Met Gln Val
 2915 2920 2925
 Leu Ser Leu Thr Glu Ser Pro Tyr Ser Asp Gly Glu Asp His Ser Ile
 2930 2935 2940
 Gln Gln Val Ser Glu Pro Trp Leu Glu Glu Arg Lys Ala Tyr Ile Asn
 2945 2950 2955 2960
 Thr Ile Ser Ser Leu Lys Asp Leu Ile Thr Lys Met Gln Leu Gln Arg
 2965 2970 2975
 Glu Ala Glu Val Tyr Asp Ser Ser Gln Ser His Glu Ser Phe Ser Asp
 2980 2985 2990
 Trp Arg Gly Glu Leu Leu Ala Leu Gln Gln Val Phe Leu Glu Glu
 2995 3000 3005
 Arg Ser Val Leu Leu Ala Ala Phe Arg Thr Glu Leu Thr Ala Leu Gly
 3010 3015 3020
 Thr Thr Asp Ala Val Gly Leu Leu Asn Cys Leu Glu Gln Arg Ile Gln
 3025 3030 3035 3040
 Glu Gln Gly Val Glu Tyr Gln Ala Ala Met Glu Cys Leu Gln Lys Ala
 3045 3050 3055
 Asp Arg Arg Ser Leu Leu Ser Glu Ile Gln Ala Leu His Ala Gln Met
 3060 3065 3070
 Asn Gly Arg Lys Ile Thr Leu Lys Arg Glu Gln Glu Ser Glu Lys Pro
 3075 3080 3085
 Ser Gln Glu Leu Leu Glu Tyr Asn Ile Gln Gln Lys Gln Ser Gln Met
 3090 3095 3100
 Leu Glu Met Gln Val Glu Leu Ser Ser Met Lys Asp Arg Ala Thr Glu
 3105 3110 3115 3120
 Leu Gln Glu Gln Leu Ser Ser Glu Lys Met Val Val Ala Glu Leu Lys
 3125 3130 3135
 Ser Glu Leu Ala Gln Thr Lys Leu Glu Leu Glu Thr Thr Leu Lys Ala
 3140 3145 3150
 Gln His Lys His Leu Lys Glu Leu Glu Ala Phe Arg Leu Glu Val Lys
 3155 3160 3165
 Asp Lys Thr Asp Glu Val His Leu Leu Asn Asp Thr Leu Ala Ser Glu
 3170 3175 3180
 Gln Lys Lys Ser Arg Glu Leu Gln Trp Ala Leu Glu Lys Glu Lys Ala
 3185 3190 3195 3200
 Lys Leu Gly Arg Ser Glu Glu Arg Asp Lys Glu Glu Leu Glu Asp Leu
 3205 3210 3215
 Lys Phe Ser Leu Glu Ser Gln Lys Gln Arg Asn Leu Gln Leu Asn Leu
 3220 3225 3230
 Leu Leu Glu Gln Gln Lys Gln Leu Leu Asn Glu Ser Gln Gln Lys Ile
 3235 3240 3245
 Glu Ser Gln Arg Met Leu Tyr Asp Ala Gln Leu Ser Glu Glu Gln Gly
 3250 3255 3260
 Arg Asn Leu Glu Leu Gln Val Leu Leu Glu Ser Glu Lys Val Arg Ile
 3265 3270 3275 3280
 Arg Glu Met Ser Ser Thr Leu Asp Arg Glu Arg Glu Leu His Ala Gln
 3285 3290 3295

Leu Gln Ser Ser Asp Gly Thr Gly Gln Ser Arg Pro Pro Leu Pro Ser
 3300 3305 3310
 Glu Asp Leu Leu Lys Glu Leu Gln Lys Gln Leu Glu Glu Lys His Ser
 3315 3320 3325
 Arg Ile Val Glu Leu Leu Asn Glu Thr Glu Lys Tyr Lys Leu Asp Ser
 3330 3335 3340
 Leu Gln Thr Arg Gln Gln Met Glu Lys Asp Arg Gln Val His Arg Lys
 3345 3350 3355 3360
 Thr Leu Gln Thr Glu Gln Glu Ala Asn Thr Glu Gly Gln Lys Lys Met
 3365 3370 3375
 His Glu Leu Gln Ser Lys Val Glu Asp Leu Gln Arg Gln Leu Glu Glu
 3380 3385 3390
 Lys Arg Gln Gln Val Tyr Lys Leu Asp Leu Glu Gly Gln Arg Leu Gln
 3395 3400 3405
 Gly Ile Met Gln Glu Phe Gln Lys Gln Glu Leu Glu Arg Glu Glu Lys
 3410 3415 3420
 Arg Glu Ser Arg Arg Ile Leu Tyr Gln Asn Leu Asn Glu Pro Thr Thr
 3425 3430 3435 3440
 Trp Ser Leu Thr Ser Asp Arg Thr Arg Asn Trp Val Leu Gln Gln Lys
 3445 3450 3455
 Ile Glu Gly Glu Thr Lys Glu Ser Asn Tyr Ala Lys Leu Ile Glu Met
 3460 3465 3470
 Asn Gly Gly Thr Gly Cys Asn His Glu Leu Glu Met Ile Arg Gln
 3475 3480 3485
 Lys Leu Gln Cys Val Ala Ser Lys Leu Gln Val Leu Pro Gln Lys Ala
 3490 3495 3500
 Ser Glu Arg Leu Gln Phe Glu Thr Ala Asp Asp Glu Asp Phe Ile Trp
 3505 3510 3515 3520
 Val Gln Glu Asn Ile Asp Glu Ile Ile Leu Gln Leu Gln Lys Leu Thr
 3525 3530 3535
 Gly Gln Gln Gly Glu Glu Pro Ser Leu Val Ser Pro Ser Thr Ser Cys
 3540 3545 3550
 Gly Ser Leu Thr Glu Arg Leu Leu Arg Gln Asn Ala Glu Leu Thr Gly
 3555 3560 3565
 His Ile Ser Gln Leu Thr Glu Glu Lys Asn Asp Leu Arg Asn Met Val
 3570 3575 3580
 Met Lys Leu Glu Glu Gln Ile Arg Trp Tyr Arg Gln Thr Gly Ala Gly
 3585 3590 3595 3600
 Arg Asp Asn Ser Ser Arg Phe Ser Leu Asn Gly Gly Ala Asn Ile Glu
 3605 3610 3615
 Ala Ile Ile Ala Ser Glu Lys Glu Val Trp Asn Arg Glu Lys Leu Thr
 3620 3625 3630
 Leu Gln Lys Ser Leu Lys Arg Ala Glu Ala Glu Val Tyr Lys Leu Lys
 3635 3640 3645
 Ala Glu Leu Arg Asn Asp Ser Leu Leu Gln Thr Leu Ser Pro Asp Ser
 3650 3655 3660
 Glu His Val Thr Leu Lys Arg Ile Tyr Gly Lys Tyr Leu Arg Ala Glu
 3665 3670 3675 3680
 Ser Phe Arg Lys Ala Leu Ile Tyr Gln Lys Lys Tyr Leu Leu Leu
 3685 3690 3695
 Leu Gly Gly Phe Gln Glu Cys Glu Asp Ala Thr Leu Ala Leu Leu Ala
 3700 3705 3710
 Arg Met Gly Gly Gln Pro Ala Phe Thr Asp Leu Glu Val Ile Thr Asn
 3715 3720 3725
 Arg Pro Lys Gly Phe Thr Arg Phe Arg Ser Ala Val Arg Val Ser Ile
 3730 3735 3740
 Ala Ile Ser Arg Met Lys Phe Leu Val Arg Arg Trp His Arg Val Thr
 3745 3750 3755 3760
 Gly Ser Val Ser Ile Asn Ile Asn Arg Asp Gly Phe Gly Leu Asn Gln
 3765 3770 3775
 Gly Ala Glu Lys Thr Asp Ser Phe Tyr His Ser Ser Gly Gly Leu Glu
 3780 3785 3790

Leu Tyr Gly Glu Pro Arg His Thr Thr Tyr Arg Ser Arg Ser Asp Leu
 3795 3800 3805
 Asp Tyr Ile Arg Ser Pro Leu Pro Phe Gln Asn Arg Tyr Pro Gly Thr
 3810 3815 3820
 Pro Ala Asp Phe Asn Pro Gly Ser Leu Ala Cys Ser Gln Leu Gln Asn
 3825 3830 3835 3840
 Tyr Asp Pro Asp Arg Ala Leu Thr Asp Tyr Ile Thr Arg Leu Glu Ala
 3845 3850 3855
 Leu Gln Arg Arg Leu Gly Thr Ile Gln Ser Gly Ser Thr Thr Gln Phe
 3860 3865 3870
 His Ala Gly Met Arg Arg
 3875

<210> 12
 <211> 1087
 <212> PRT
 <213> Oryctolagus cuniculus

<400> 12
 Arg Glu Lys Leu Glu Val Gln Cys Gln Ala Glu Lys Val Arg Asp Asp
 1 5 10 15
 Leu Gln Lys Gln Val Lys Ala Leu Glu Ile Asp Val Glu Glu Gln Val
 20 25 30
 Cys Arg Phe Ile Glu Leu Glu Gln Glu Lys Asn Ala Glu Leu Met Asp
 35 40 45
 Leu Arg Gln Gln Asn Gln Ala Leu Glu Lys Gln Leu Glu Lys Met Arg
 50 55 60
 Lys Met Asp Leu Arg Gln Gln Asn Gln Ala Leu Glu Lys Gln Leu Glu
 65 70 75 80
 Lys Met Arg Lys Phe Leu Asp Glu Gln Ala Ile Asp Arg Glu His Glu
 85 90 95
 Arg Asp Val Phe Gln Gln Glu Ile Gln Lys Leu Glu Gln Gln Leu Lys
 100 105 110
 Leu Val Pro Arg Phe Gln Pro Ile Ser Glu His Gln Thr Arg Glu Val
 115 120 125
 Glu Gln Leu Thr Asn His Leu Lys Glu Lys Thr Asp Lys Cys Ser Glu
 130 135 140
 Leu Leu Leu Ser Lys Glu Gln Leu Gln Arg Asp Val Gln Glu Arg Asn
 145 150 155 160
 Glu Glu Ile Glu Lys Leu Glu Cys Arg Val Arg Glu Leu Glu Gln Ala
 165 170 175
 Leu Leu Ser Val Gln Thr Leu Ser Lys Arg Trp Arg Thr Arg Asn Ser
 180 185 190
 Phe Gly Ala Val Glu Pro Lys Ala Glu Leu Cys Leu Glu Val Gln Leu
 195 200 205
 Gln Ala Glu Arg Asp Ala Ile Asp Arg Lys Glu Lys Glu Ile Thr Asn
 210 215 220
 Leu Glu Glu Gln Leu Glu Gln Phe Arg Glu Glu Leu Glu Asn Lys Asn
 225 230 235 240
 Glu Glu Val Gln Gln Leu His Met Gln Leu Glu Ile Gln Lys Lys Glu
 245 250 255
 Ser Thr Thr Arg Leu Gln Glu Leu Glu Gln Glu Asn Lys Leu Phe Lys
 260 265 270
 Asp Glu Met Glu Lys Leu Gly Phe Ala Ile Lys Glu Ser Asp Ala Val
 275 280 285
 Ser Pro Gln Asp Gln Gln Val Leu Phe Gly Lys Phe Ala Gln Ile Ile
 290 295 300
 His Glu Lys Glu Val Glu Ile Asp Arg Leu Asn Glu Gln Ile Ile Lys
 305 310 315 320
 Leu Gln Gln Gln Leu Lys Ile Thr Thr Asp Asn Lys Val Ile Glu Glu
 325 330 335
 Lys Asn Glu Leu Ile Arg Asp Leu Glu Ala Gln Ile Glu Cys Leu Met

	340	345	350
Ser Asp Gln Glu Arg Val Arg Lys Asn Arg Glu Glu Glu Ile Glu Gln			
355	360	365	
Leu Asn Glu Val Ile Glu Lys Leu Gln Gln Glu Leu Ala Asn Ile Asp			
370	375	380	
Gln Lys Thr Ser Val Asp Pro Ser Ser Leu Ser Glu Glu Ala Asp Ser			
385	390	395	400
Leu Lys His Gln Leu Asp Lys Val Ile Ala Glu Lys Leu Ala Leu Glu			
405	410	415	
His Gln Val Glu Thr Thr Asn Glu Glu Met Ala Val Thr Lys Asn Val			
420	425	430	
Leu Lys Glu Thr Asn Phe Lys Met Asn Gln Leu Thr Gln Glu Leu Cys			
435	440	445	
Ser Leu Lys Arg Glu Arg Glu Lys Met Glu Arg Ile Gln Ser Val Pro			
450	455	460	
Glu Lys Ser Val Asn Met Ser Val Gly Asp Leu Ser Lys Asp Lys Pro			
465	470	475	480
Glu Met Asp Leu Ile Pro Thr Glu Asp Ala Leu Ala Gln Leu Glu Thr			
485	490	495	
Gln Thr Gln Leu Arg Ser Ser Glu Glu Ser Ser Lys Val Ser Leu Ser			
500	505	510	
Ser Leu Glu Thr Lys Leu Leu Gln Leu Glu Ser Thr Val Ser Thr Lys			
515	520	525	
Asp Leu Glu Leu Thr Gln Cys Tyr Lys Gln Ile Gln Asp Met Arg Glu			
530	535	540	
Gln Gly Arg Ser Glu Thr Glu Met Leu Gln Thr Lys Ile Val Ser Leu			
545	550	555	560
Gln Lys Val Leu Glu Glu Lys Val Ala Ala Ala Leu Val Ser Gln Val			
565	570	575	
Gln Leu Glu Ala Val Gln Glu Tyr Val Lys Leu Cys Ala Asp Lys Pro			
580	585	590	
Ala Val Ser Ser Asp Pro Ala Arg Thr Glu Val Pro Gly Leu Ser Gln			
595	600	605	
Leu Ala Gly Asn Thr Met Glu Ser Asp Val Ser Ala Leu Thr Trp Arg			
610	615	620	
Ile Ser Glu Leu Glu Ser Gln Leu Val Glu Met His Ser Ser Leu Ile			
625	630	635	640
Ser Glu Lys Glu Gln Val Glu Ile Ala Glu Lys Asn Ala Leu Glu Lys			
645	650	655	
Glu Lys Lys Leu Gln Glu Leu Gln Lys Leu Val Gln Asp Ser Glu Thr			
660	665	670	
Lys Gln Arg Glu Arg Glu Arg Gln Ser Arg Leu His Gly Asp Leu Gly			
675	680	685	
Val Leu Glu Ser Thr Thr Ser Glu Glu Ser Gly Val Phe Gly Glu Leu			
690	695	700	
Glu Ala Leu Arg Ala Glu Ser Ala Ala Pro Lys Gly Glu Leu Ala Asn			
705	710	715	720
Tyr Lys Glu Leu Ala Glu Lys Leu Gln Glu Leu Leu Val Lys Glu			
725	730	735	
Thr Asn Met Ala Ser Leu Pro Lys Glu Leu Ser His Val Arg Asp Gln			
740	745	750	
Leu Thr Glu Ala Glu Asp Lys Leu Ser His Phe Ser Glu Lys Glu Asp			
755	760	765	
Lys Thr Glu Val Gln Glu His Gly Thr Ile Cys Ile Leu Glu Pro Cys			
770	775	780	
Pro Gly Gln Ile Gly Glu Ser Phe Ala Ser Gln Thr Glu Gly Ala Val			
785	790	795	800
Gln Val Asn Ser His Thr Gln Thr Pro Gln Ile Pro Val Arg Ser Val			
805	810	815	
Gly Ile Gln Thr His Ser Gln Ser Asp Ser Ser Pro Glu Glu Val Ala			
820	825	830	
Glu Ile Ile Ser Arg Phe Thr Glu Lys Ile Glu Gln Met Arg Glu Leu			

835	840	845
His Ala Ala Glu Ile Leu Asp	Met Glu Ser Arg His	Ile Ser Glu Thr
850	855	860
Glu Thr Leu Lys Arg Glu His Cys Ile Ala Val	Gln Leu Leu Thr	Glu
865	870	875
Glu Cys Ala Ser Leu Lys Ser Leu Ile Gln Gly	Leu Arg Met Pro	Glu
885	890	895
Gly Ser Ser Val Pro Glu Leu Thr His Ser Asn Ala Tyr	Gln Thr Arg	
900	905	910
Glu Val Gly Ser Ser Asp Ser Gly Ser Asp Trp Gly	Gln Gly Ile Tyr	
915	920	925
Leu Thr Gln Ser Gln Gly Phe Asp Thr Ala Ser	Glu Ala Arg Gly	Glu
930	935	940
Glu Gly Glu Thr Ser Thr Asp Ser Phe Pro Lys	Lys Ile Lys Gly	Leu
945	950	955
Leu Arg Ala Val His Asn Glu Gly Met Gln Val	Leu Ser Leu Thr	Glu
965	970	975
Gly Pro Cys Gly Asp Gly Glu Asp Tyr Pro Gly His	Gln Leu Ser	Glu
980	985	990
Ser Trp Leu Glu Glu Arg Arg Ala Tyr Leu Ser Thr	Ile Ser Ser	Leu
995	1000	1005
Lys Asp Phe Ile Thr Lys Met Gln Val Gln Arg	Glu Val Glu Val	Tyr
1010	1015	1020
Asp Ser Ser Gln Ser His Glu Asn Ile Ser Asp Trp Arg	Gly Glu	Leu
1025	1030	1035
Leu Leu Ala Leu Gln Gln Val Phe Leu Arg Glu Arg Ser	Val Leu	Leu
1045	1050	1055
Ala Ala Phe Lys Thr Glu Leu Thr Ala Leu Gly Thr Arg	Asp Ala Ala	
1060	1065	1070
Gly Leu Leu Asn Cys Leu Glu Gln Arg Ile Pro Arg Thr	Glu Tyr	
1075	1080	1085

<210> 13

<211> 503

<212> PRT

<213> Drosophila melanogaster

<400> 13

Met Asp Ser Asp Asn Asp Asn Asp Phe	Cys Asp Asn Val Asp Ser	Gly
1	5	10
Asn Val Ser Ser Gly Asp Asp Gly	Asp Asp Phe Gly	Met Glu Val
20	25	30
Asp Leu Pro Ser Ser Ala Asp Arg	Gln Met Asp Gln Asp Asp	Tyr Gln
35	40	45
Tyr Lys Val Leu Thr Thr Asp Glu	Ile Val Gln His Gln Arg	Glu Ile
50	55	60
Ile Asp Glu Ala Asn Leu Leu Lys	Leu Pro Thr Pro Thr	Thr Arg
65	70	75
Ile Leu Leu Asn His Phe Lys Trp	Asp Lys Glu Lys Leu	Glu Lys
85	90	95
Tyr Phe Asp Asp Asn Thr Asp Glu	Phe Phe Lys Cys Ala His	Val Ile
100	105	110
Asn Pro Phe Asn Ala Thr Glu	Ala Ile Lys Gln Lys	Thr Ser Arg Ser
115	120	125
Gln Cys Glu Glu Cys Glu	Ile Cys Phe Ser Gln Leu	Pro Pro Asp Ser
130	135	140
Met Ala Gly Leu Glu Cys Gly	His Arg Phe Cys Met Pro	Cys Trp His
145	150	155
Glu Tyr Leu Ser Thr Lys Ile Val Ala	Glu Gly Leu Gly	Gln Thr Ile
165	170	175
Ser Cys Ala Ala His Gly Cys Asp	Ile Leu Val Asp Asp	Val Thr Val
180	185	190

Ala Asn Leu Val Thr Asp Ala Arg Val Arg Val Lys Tyr Gln Gln Leu
 195 200 205
 Ile Thr Asn Ser Phe Val Glu Cys Asn Gln Leu Leu Arg Trp Cys Pro
 210 215 220
 Ser Val Asp Cys Thr Tyr Ala Val Lys Val Pro Tyr Ala Glu Pro Arg
 225 230 235 240
 Arg Val His Cys Lys Cys Gly His Val Phe Cys Phe Ala Cys Gly Glu
 245 250 255
 Asn Trp His Asp Pro Val Lys Cys Arg Trp Leu Lys Lys Trp Ile Lys
 260 265 270
 Lys Cys Asp Asp Asp Ser Glu Thr Ser Asn Trp Ile Ala Ala Asn Thr
 275 280 285
 Lys Glu Cys Pro Arg Cys Ser Val Thr Ile Glu Lys Asp Gly Gly Cys
 290 295 300
 Asn His Met Val Cys Lys Asn Gln Asn Cys Lys Asn Glu Phe Cys Trp
 305 310 315 320
 Val Cys Leu Gly Ser Trp Glu Pro His Gly Ser Ser Trp Tyr Asn Cys
 325 330 335
 Asn Arg Tyr Asp Glu Asp Glu Ala Lys Thr Ala Arg Asp Ala Gln Glu
 340 345 350
 Lys Leu Arg Ser Ser Leu Ala Arg Tyr Leu His Tyr Tyr Asn Arg Tyr
 355 360 365
 Met Asn His Met Gln Ser Met Lys Phe Glu Asn Lys Leu Tyr Ala Ser
 370 375 380
 Val Lys Gln Lys Met Glu Glu Met Gln Gln His Asn Met Ser Trp Ile
 385 390 395 400
 Glu Val Gln Phe Leu Lys Lys Ala Val Asp Ile Leu Cys Gln Cys Arg
 405 410 415
 Gln Thr Leu Met Tyr Thr Tyr Val Phe Ala Tyr Tyr Leu Lys Lys Asn
 420 425 430
 Asn Gln Ser Met Ile Phe Glu Asp Asn Gln Lys Asp Leu Glu Ser Ala
 435 440 445
 Thr Glu Met Leu Ser Glu Tyr Leu Glu Arg Asp Ile Thr Ser Glu Asn
 450 455 460
 Leu Ala Asp Ile Lys Gln Lys Val Gln Asp Lys Tyr Arg Tyr Cys Glu
 465 470 475 480
 Lys Arg Cys Ser Val Leu Leu Lys His Val His Glu Gly Tyr Asp Lys
 485 490 495
 Glu Trp Trp Glu Tyr Thr Glu
 500

<210> 14
 <211> 961
 <212> PRT
 <213> Homo sapiens

<400> 14
 Met Leu Leu Leu Leu Leu Ala Pro Leu Phe Leu Arg Pro Pro Gly
 1 5 10 15
 Ala Gly Gly Ala Gln Thr Pro Asn Ala Thr Ser Glu Gly Cys Gln Ile
 20 25 30
 Ile His Pro Pro Trp Glu Gly Ile Arg Tyr Arg Gly Leu Thr Arg
 35 40 45
 Asp Gln Val Lys Ala Ile Asn Phe Leu Pro Val Asp Tyr Glu Ile Glu
 50 55 60
 Tyr Val Cys Arg Gly Glu Arg Glu Val Val Gly Pro Lys Val Arg Lys
 65 70 75 80
 Cys Leu Ala Asn Gly Ser Trp Thr Asp Met Asp Thr Pro Ser Arg Cys
 85 90 95
 Val Arg Ile Cys Ser Lys Ser Tyr Leu Thr Leu Glu Asn Gly Lys Val
 100 105 110
 Phe Leu Thr Gly Gly Asp Leu Pro Ala Leu Asp Gly Ala Arg Val Asp

115	120	125
Phe Arg Cys Asp Pro Asp	Phe His Leu Val Gly Ser	Ser Arg Ser Ile
130	135	140
Cys Ser Gln Gly Gln Trp	Ser Thr Pro Lys Pro His Cys Gln Val Asn	
145	150	155
Arg Thr Pro His Ser Glu Arg Arg Ala Val	Tyr Ile Gly Ala Leu Phe	160
165	170	175
Pro Met Ser Gly Gly Trp Pro Gly Gly Gln Ala Cys Gln	Pro Ala Val	
180	185	190
Glu Met Ala Leu Glu Asp Val Asn Ser Arg Arg Asp	Ile Leu Pro Asp	
195	200	205
Tyr Glu Leu Lys Leu Ile His His Asp Ser Lys Cys Asp	Pro Gly Gln	
210	215	220
Ala Thr Lys Tyr Leu Tyr Glu Leu Leu Tyr Asn Asp	Pro Ile Lys Ile	
225	230	235
Ile Leu Met Pro Gly Cys Ser Ser Val Ser Thr Leu Val	Ala Glu Ala	
245	250	255
Ala Arg Met Trp Asn Leu Ile Val Leu Ser Tyr Gly Ser	Ser Ser Pro	
260	265	270
Ala Leu Ser Asn Arg Gln Arg Phe Pro Thr Phe Phe	Arg Thr His Pro	
275	280	285
Ser Ala Thr Leu His Asn Pro Thr Arg Val Lys Leu	Phe Glu Lys Trp	
290	295	300
Gly Trp Lys Lys Ile Ala Thr Ile Gln Gln	Thr Thr Glu Val Phe Thr	
305	310	315
Ser Thr Leu Asp Asp Leu Glu Glu Arg Val Lys Glu	Ala Gly Ile Glu	
325	330	335
Ile Thr Phe Arg Gln Ser Phe Phe Ser Asp Pro Ala Val	Pro Val Lys	
340	345	350
Asn Leu Lys Arg Gln Asp Ala Arg Ile Ile Val Gly	Leu Phe Tyr Glu	
355	360	365
Thr Glu Ala Arg Lys Val Phe Cys Glu Val Tyr Lys	Glu Arg Leu Phe	
370	375	380
Gly Lys Lys Tyr Val Trp Phe Leu Ile Gly Trp Tyr	Ala Asp Asn Trp	
385	390	395
Phe Lys Ile Tyr Asp Pro Ser Ile Asn Cys Thr Val Asp	Glu Met Thr	
405	410	415
Glu Ala Val Glu Gly His Ile Thr Thr Glu Ile Val Met	Leu Asn Pro	
420	425	430
Ala Asn Thr Arg Ser Ile Ser Asn Met Thr Ser Gln Glu	Phe Val Glu	
435	440	445
Lys Leu Thr Lys Arg Leu Lys Arg His Pro Glu Glu	Thr Gly Gly Phe	
450	455	460
Gln Glu Ala Pro Leu Ala Tyr Asp Ala Ile Trp Ala	Leu Ala Leu Ala	
465	470	475
Leu Asn Lys Thr Ser Gly Gly Gly Arg Ser Gly Val Arg	Leu Glu	
485	490	495
Asp Phe Asn Tyr Asn Asn Gln Thr Ile Thr Asp Gln Ile	Tyr Arg Ala	
500	505	510
Met Asn Ser Ser Ser Phe Glu Gly Val Ser Gly His	Val Val Phe Asp	
515	520	525
Ala Ser Gly Ser Arg Met Ala Trp Thr Leu Ile Glu	Gln Leu Gln Gly	
530	535	540
Gly Ser Tyr Lys Lys Ile Gly Tyr Tyr Asp Ser Thr	Lys Asp Asp Leu	
545	550	555
Ser Trp Ser Lys Thr Asp Lys Trp Ile Gly Gly Ser	Pro Pro Ala Asp	
565	570	575
Gln Thr Leu Val Ile Lys Thr Phe Arg Phe Leu Ser	Gln Lys Leu Phe	
580	585	590
Ile Ser Val Ser Val Leu Ser Ser Leu Gly Ile Val	Leu Ala Val Val	
595	600	605
Cys Leu Ser Phe Asn Ile Tyr Asn Ser His Val Arg	Tyr Ile Gln Asn	

610	615	620
Ser Gln Pro Asn Leu Asn Asn Leu Thr Ala Val Gly Cys Ser Leu Ala		
625	630	635
Leu Ala Ala Val Phe Pro Leu Gly Leu Asp Gly Tyr His Ile Gly Arg		640
645	650	655
Asn Gln Phe Pro Phe Val Cys Gln Ala Arg Leu Trp Leu Leu Gly Leu		
660	665	670
Gly Phe Ser Leu Gly Tyr Gly Ser Met Phe Thr Lys Ile Trp Trp Val		
675	680	685
His Thr Val Phe Thr Lys Lys Glu Glu Lys Lys Glu Trp Arg Lys Thr		
690	695	700
Leu Glu Pro Trp Lys Leu Tyr Ala Thr Val Gly Leu Leu Val Gly Met		
705	710	715
Asp Val Leu Thr Leu Ala Ile Trp Gln Ile Val Asp Pro Leu His Arg		720
725	730	735
Thr Ile Glu Thr Phe Ala Lys Glu Glu Pro Lys Glu Asp Ile Asp Val		
740	745	750
Ser Ile Leu Pro Gln Leu Glu His Cys Ser Ser Arg Lys Met Asn Thr		
755	760	765
Trp Leu Gly Ile Phe Tyr Gly Tyr Lys Gly Leu Leu Leu Leu Gly		
770	775	780
Ile Phe Leu Ala Tyr Glu Thr Lys Ser Val Ser Thr Glu Lys Ile Asn		
785	790	795
Asp His Arg Ala Val Gly Met Ala Ile Tyr Asn Val Ala Val Leu Cys		800
805	810	815
Leu Ile Thr Ala Pro Val Thr Met Ile Leu Ser Ser Gln Gln Asp Ala		
820	825	830
Ala Phe Ala Phe Ala Ser Leu Ala Ile Val Phe Ser Ser Tyr Ile Thr		
835	840	845
Leu Val Val Leu Phe Val Pro Lys Met Arg Arg Leu Ile Thr Arg Gly		
850	855	860
Glu Trp Gln Ser Glu Ala Gln Asp Thr Met Lys Thr Gly Ser Ser Thr		
865	870	875
Asn Asn Asn Glu Glu Lys Ser Arg Leu Leu Glu Lys Glu Asn Arg		
885	890	895
Glu Leu Glu Lys Ile Ile Ala Glu Lys Glu Glu Arg Val Ser Glu Leu		
900	905	910
Arg His Gln Leu Gln Ser Arg Gln Gln Leu Arg Ser Arg Arg His Pro		
915	920	925
Pro Thr Pro Pro Glu Pro Ser Gly Gly Leu Pro Arg Gly Pro Pro Glu		
930	935	940
Pro Pro Asp Arg Leu Ser Cys Asp Gly Ser Arg Val His Leu Leu Tyr		
945	950	955
Lys		960

<210> 15
<211> 281
<212> PRT
<213> *Saccharomyces cerevisiae*

<400> 15			
Met Ser Glu Tyr Gln Pro Ser Leu Phe Ala Leu Asn Pro Met Gly Phe			
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Ser Pro Leu Asp Gly Ser Lys Ser Thr Asn Glu Asn Val Ser Ala Ser			
20	25	30	
Thr Ser Thr Ala Lys Pro Met Val Gly Gln Leu Ile Phe Asp Lys Phe			
35	40	45	
Ile Lys Thr Glu Glu Asp Pro Ile Ile Lys Gln Asp Thr Pro Ser Asn			
50	55	60	
Leu Asp Phe Asp Phe Ala Leu Pro Gln Thr Ala Thr Ala Pro Asp Ala			
65	70	75	80

Lys	Thr	Val	Leu	Pro	Ile	Pro	Glu	Leu	Asp	Asp	Ala	Val	Val	Glu	Ser
							85							95	
Phe	Phe	Ser	Ser	Ser	Thr	Asp	Ser	Thr	Pro	Met	Phe	Glu	Tyr	Glu	Asn
							100						110		
Leu	Glu	Asp	Asn	Ser	Lys	Glu	Trp	Thr	Ser	Leu	Phe	Asp	Asn	Asp	Ile
							115						125		
Pro	Val	Thr	Thr	Asp	Asp	Val	Ser	Leu	Ala	Asp	Lys	Ala	Ile	Glu	Ser
							130						140		
Thr	Glu	Glu	Val	Ser	Leu	Val	Pro	Ser	Asn	Leu	Glu	Val	Ser	Thr	Thr
							145						160		
Ser	Phe	Leu	Pro	Thr	Pro	Val	Leu	Glu	Asp	Ala	Lys	Leu	Thr	Gln	Thr
							165						175		
Arg	Lys	Val	Lys	Lys	Pro	Asn	Ser	Val	Val	Lys	Lys	Ser	His	His	Val
							180						190		
Gly	Lys	Asp	Asp	Glu	Ser	Arg	Leu	Asp	His	Leu	Gly	Val	Val	Ala	Tyr
							195						205		
Asn	Arg	Lys	Gln	Arg	Ser	Ile	Pro	Leu	Ser	Pro	Ile	Val	Pro	Glu	Ser
							210						220		
Ser	Asp	Pro	Ala	Ala	Leu	Lys	Arg	Ala	Arg	Asn	Thr	Glu	Ala	Ala	Arg
							225						240		
Arg	Ser	Arg	Ala	Arg	Lys	Leu	Gln	Arg	Met	Lys	Gln	Leu	Glu	Asp	Lys
							245						255		
Val	Glu	Glu	Leu	Leu	Ser	Lys	Asn	Tyr	His	Leu	Glu	Asn	Glu	Val	Ala
							260						270		
Arg	Leu	Lys	Lys	Leu	Val	Gly	Glu	Arg							
							275						280		

<210> 16

<211> 957

<212> PRT

<213> Homo sapiens

<400> 16

Met	Ala	Asp	Pro	Ala	Glu	Cys	Ser	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
1					5				10					15	
Pro	Leu	Asn	Glu	Ala	Glu	Ile	Leu	Arg	Gly	Asp	Lys	Phe	Ile	Pro	Lys
							20		25				30		
Phe	Lys	Gly	Asp	Glu	Thr	Val	Val	Ile	Gly	Gln	Gly	Lys	Pro	Tyr	Val
							35		40				45		
Phe	Asp	Arg	Val	Leu	Pro	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val	Tyr	Asn
							50		55				60		
Ala	Cys	Ala	Lys	Gln	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly
							65		70				80		
Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
							85		90				95		
Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
							100		105				110		
Ala	His	Asp	Ile	Phe	Asp	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
							115		120				125		
Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
							130		135				140		
Asp	Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ala	Val	His	Glu	Asp	Lys
							145		150				160		
Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser
							165		170				175		
Pro	Glu	Glu	Val	Met	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ala	Asn	Arg	His
							180		185				190		
Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile
							195		200				205		
Phe	Leu	Ile	Asn	Ile	Lys	Gln	Glu	Asn	Val	Glu	Thr	Glu	Lys	Lys	Leu
							210		215				220		
Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser

225	230	235	240
Lys Thr Gly Ala Glu	Gly Ala Val Leu Asp	Glu Ala Lys Asn Ile Asn	
245	250	255	
Lys Ser Leu Ser Ala	Leu Gly Asn Val Ile Ser Ala	Leu Ala Glu Gly	
260	265	270	
Thr Lys Thr His Val	Pro Tyr Arg Asp Ser Lys Met	Thr Arg Ile Leu	
275	280	285	
Gln Asp Ser Leu Gly	Gly Asn Cys Arg Thr Thr	Ile Val Ile Cys Cys	
290	295	300	
Ser Pro Ser Val Phe	Asn Glu Ala Glu Thr Lys Ser	Thr Leu Met Phe	
305	310	315	320
Gly Gln Arg Ala Lys	Thr Ile Lys Asn Thr Val Ser	Val Asn Leu Glu	
325	330	335	
Leu Thr Ala Glu Glu	Trp Lys Lys Tyr Glu Lys Glu Lys		
340	345	350	
Asn Lys Thr Leu Lys	Asn Val Ile Gln His Leu Glu Met	Glu Leu Asn	
355	360	365	
Arg Trp Arg Asn Gly	Glu Ala Val Pro Glu Asp Glu Gln	Ile Ser Ala	
370	375	380	
Lys Asp Gln Lys Asn	Leu Glu Pro Cys Asp Asn Thr Pro	Ile Ile Asp	
385	390	395	400
Asn Ile Ala Pro Val	Val Ala Gly Ile Ser Thr Glu	Glu Lys Glu Lys	
405	410	415	
Tyr Asp Glu Glu Ile	Ser Ser Leu Tyr Arg Gln Leu Asp Asp	Lys Asp	
420	425	430	
Asp Glu Ile Asn Gln	Gln Ser Gln Leu Ala Glu Lys Leu Lys Gln Gln		
435	440	445	
Met Leu Asp Gln Asp	Glu Leu Leu Ala Ser Thr Arg Arg	Asp Tyr Glu	
450	455	460	
Lys Ile Gln Glu Glu	Leu Thr Arg Leu Gln Ile Glu Asn Glu Ala Ala		
465	470	475	480
Lys Asp Glu Val Lys	Glu Val Leu Gln Ala Leu Glu Glu Leu Ala Val		
485	490	495	
Asn Tyr Asp Gln Lys	Ser Gln Glu Val Glu Asp Lys Thr Arg Ala Asn		
500	505	510	
Glu Gln Leu Thr Asp	Glu Leu Ala Gln Lys Thr Thr Leu Thr Thr		
515	520	525	
Thr Gln Arg Glu Leu	Ser Gln Leu Gln Glu Leu Ser Asn His Gln Lys		
530	535	540	
Lys Arg Ala Thr Glu	Ile Leu Asn Leu Leu Lys Asp Leu Gly Glu		
545	550	555	560
Ile Gly Gly Ile Ile	Gly Thr Asn Asp Val Lys Thr Leu Ala Asp Val		
565	570	575	
Asn Gly Val Ile Glu	Glu Glu Phe Thr Met Ala Arg Leu Tyr Ile Ser		
580	585	590	
Lys Met Lys Ser Glu	Val Lys Ser Leu Val Asn Arg Ser Lys Gln Leu		
595	600	605	
Glu Ser Ala Gln Met	Asp Ser Asn Arg Lys Met Asn Ala Ser Glu Arg		
610	615	620	
Glu Leu Ala Ala Cys	Gln Leu Leu Ile Ser Gln His Glu Ala Lys Ile		
625	630	635	640
Lys Ser Leu Thr Asp	Tyr Met Gln Asn Met Glu Gln Lys Arg Arg Gln		
645	650	655	
Leu Glu Glu Ser Gln	Asp Ser Leu Ser Glu Glu Leu Ala Lys Leu Arg		
660	665	670	
Ala Gln Glu Lys Met	His Glu Val Ser Phe Gln Asp Lys Glu Lys Glu		
675	680	685	
His Leu Thr Arg Leu	Gln Asp Ala Glu Glu Met Lys Lys Ala Leu Glu		
690	695	700	
Gln Gln Met Glu Ser	His Arg Glu Ala His Gln Lys Gln Leu Ser Arg		
705	710	715	720
Leu Arg Asp Glu Ile	Glu Glu Lys Gln Lys Ile Ile Asp Glu Ile Arg		

	725	730	735												
Asp	Leu	Asn	Gln	Lys	Leu	Gln	Leu	Glu	Gln	Glu	Lys	Leu	Ser	Ser	Asp
	740				745							750			
Tyr	Asn	Lys	Leu	Lys	Ile	Glu	Asp	Gln	Glu	Arg	Glu	Met	Lys	Leu	Glu
	755				760							765			
Lys	Leu	Leu	Leu	Leu	Asn	Asp	Lys	Arg	Glu	Gln	Ala	Arg	Glu	Asp	Leu
	770				775							780			
Lys	Gly	Leu	Glu	Glu	Thr	Val	Ser	Arg	Glu	Leu	Gln	Thr	Leu	His	Asn
	785				790							795			800
Leu	Arg	Lys	Leu	Phe	Val	Gln	Asp	Leu	Thr	Thr	Arg	Val	Lys	Ser	
	805						810						815		
Val	Glu	Leu	Asp	Asn	Asp	Asp	Gly	Gly	Gly	Ser	Ala	Ala	Gln	Lys	Gln
	820						825						830		
Lys	Ile	Ser	Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Val	His
	835						840						845		
Lys	Gln	Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys
	850						855						860		
Leu	Glu	Lys	Arg	Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu
	865				870				875					880	
Ser	Ala	Leu	Lys	Glu	Ala	Lys	Glu	Asn	Ala	Met	Arg	Asp	Arg	Lys	Arg
	885						890						895		
Tyr	Gln	Gln	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Ala	Lys	Asn
	900						905						910		
Met	Ala	Arg	Arg	Ala	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro
	915						920						925		
Gly	His	Tyr	Pro	Ala	Ser	Ser	Pro	Thr	Ala	Val	His	Ala	Ile	Arg	Gly
	930						935						940		
Gly	Gly	Gly	Ser	Ser	Ser	Asn	Ser	Thr	His	Tyr	Gln	Lys			
	945				950				955						

<210> 17
<211> 956
<212> PRT
<213> Mus musculus

	<400> 17														
Met	Ala	Asp	Pro	Ala	Glu	Cys	Ser	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
								1	5	10			15		
Pro	Leu	Asn	Glu	Ala	Glu	Ile	Leu	Arg	Gly	Asp	Lys	Phe	Ile	Pro	Lys
								20	25	30					
Phe	Lys	Gly	Glu	Glu	Thr	Val	Val	Ile	Gly	Gln	Gly	Lys	Pro	Tyr	Val
								35	40	45					
Phe	Asp	Arg	Val	Leu	Pro	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val	Tyr	Asn
								50	55	60					
Ala	Cys	Ala	Lys	Gln	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly
								65	70	75			80		
Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
								85	90	95					
Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
								100	105	110					
Ala	His	Asp	Ile	Phe	Asp	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
								115	120	125					
Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
								130	135	140					
Asp	Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ala	Val	His	Glu	Asp	Lys
								145	150	155			160		
Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser
								165	170	175					
Pro	Glu	Glu	Val	Met	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ala	Asn	Arg	His
								180	185	190					
Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile
								195	200	205					

Phe Leu Ile Asn Ile Lys Gln Glu Asn Val Glu Thr Glu Lys Lys Leu
 210 215 220
 Ser Gly Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys Val Ser
 225 230 235 240
 Lys Thr Gly Ala Glu Gly Ala Val Leu Asp Glu Ala Lys Asn Ile Asn
 245 250 255
 Lys Ser Leu Ser Ala Leu Gly Asn Val Ile Ser Ala Leu Ala Glu Gly
 260 265 270
 Thr Lys Thr His Val Pro Tyr Arg Asp Ser Lys Met Thr Arg Ile Leu
 275 280 285
 Gln Asp Ser Leu Gly Gly Asn Cys Arg Thr Thr Ile Val Ile Cys Cys
 290 295 300
 Ser Pro Ser Val Phe Asn Glu Ala Glu Thr Lys Ser Thr Leu Met Phe
 305 310 315 320
 Gly Gln Arg Ala Lys Thr Ile Lys Asn Thr Val Ser Val Asn Leu Glu
 325 330 335
 Leu Thr Ala Glu Glu Trp Lys Lys Tyr Glu Lys Glu Lys Glu Lys
 340 345 350
 Asn Lys Ala Leu Lys Ser Val Leu Gln His Leu Glu Met Glu Leu Asn
 355 360 365
 Arg Trp Arg Asn Gly Glu Ala Val Pro Glu Asp Glu Gln Ile Ser Ala
 370 375 380
 Lys Asp His Lys Ser Leu Glu Pro Cys Asp Asn Thr Pro Ile Ile Asp
 385 390 395 400
 Asn Ile Thr Pro Val Val Asp Gly Ile Ser Ala Glu Lys Glu Lys Tyr
 405 410 415
 Asp Glu Glu Ile Thr Ser Leu Tyr Arg Gln Leu Asp Asp Lys Asp Asp
 420 425 430
 Glu Ile Asn Gln Gln Ser Gln Leu Ala Glu Lys Leu Lys Gln Gln Met
 435 440 445
 Leu Asp Gln Asp Glu Leu Leu Ala Ser Thr Arg Arg Asp Tyr Glu Lys
 450 455 460
 Ile Gln Glu Glu Leu Thr Arg Leu Gln Ile Glu Asn Glu Ala Ala Lys
 465 470 475 480
 Asp Glu Val Lys Glu Val Leu Gln Ala Leu Glu Glu Leu Ala Val Asn
 485 490 495
 Tyr Asp Gln Lys Ser Gln Glu Val Glu Asp Lys Thr Arg Ala Asn Glu
 500 505 510
 Gln Leu Thr Asp Glu Leu Ala Gln Lys Thr Thr Thr Leu Thr Thr Thr
 515 520 525
 Gln Arg Glu Leu Ser Gln Leu Gln Glu Leu Ser Asn His Gln Lys Lys
 530 535 540
 Arg Ala Thr Glu Ile Leu Asn Leu Leu Lys Asp Leu Gly Glu Ile
 545 550 555 560
 Gly Gly Ile Ile Gly Thr Asn Asp Val Lys Thr Leu Ala Asp Val Asn
 565 570 575
 Gly Val Ile Glu Glu Phe Thr Met Ala Arg Leu Tyr Ile Ser Lys
 580 585 590
 Met Lys Ser Glu Val Lys Ser Leu Val Asn Arg Ser Lys Gln Leu Glu
 595 600 605
 Ser Ala Gln Met Asp Ser Asn Arg Lys Met Asn Ala Ser Glu Arg Glu
 610 615 620
 Leu Ala Ala Cys Gln Leu Leu Ile Ser Gln His Glu Ala Lys Ile Lys
 625 630 635 640
 Ser Leu Thr Asp Tyr Met Gln Asn Met Glu Gln Lys Arg Arg Gln Leu
 645 650 655
 Glu Glu Ser Gln Asp Ser Leu Ser Glu Glu Leu Ala Lys Leu Arg Ala
 660 665 670
 Gln Glu Lys Met His Glu Val Ser Phe Gln Asp Lys Glu Lys Glu His
 675 680 685
 Leu Thr Arg Leu Gln Asp Ala Glu Glu Val Lys Lys Ala Leu Glu Gln
 690 695 700

Gln Met Glu Ser His Arg Glu Ala His Gln Lys Gln Leu Ser Arg Leu
 705 710 715 720
 Arg Asp Glu Ile Glu Glu Lys Gln Arg Ile Ile Asp Glu Ile Arg Asp
 725 730 735
 Leu Asn Gln Lys Leu Gln Leu Glu Gln Glu Arg Leu Ser Ser Asp Tyr
 740 745 750
 Asn Lys Leu Lys Ile Glu Asp Gln Glu Arg Glu Val Lys Leu Glu Lys
 755 760 765
 Leu Leu Leu Asn Asp Lys Arg Glu Gln Ala Arg Glu Asp Leu Lys
 770 775 780
 Gly Leu Glu Glu Thr Val Ser Ile Glu Leu Gln Thr Leu His Asn Leu
 785 790 795 800
 Arg Lys Leu Phe Val Gln Asp Leu Thr Thr Arg Val Lys Lys Ser Val
 805 810 815
 Glu Leu Asp Ser Asp Asp Gly Gly Ser Ala Ala Gln Lys Gln Lys
 820 825 830
 Ile Ser Phe Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys
 835 840 845
 Gln Leu Val Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu
 850 855 860
 Glu Lys Arg Leu Arg Ala Thr Ala Glu Arg Val Lys Ala Leu Glu Ser
 865 870 875 880
 Ala Leu Lys Glu Ala Lys Glu Asn Ala Met Arg Asp Arg Lys Arg Tyr
 885 890 895
 Gln Gln Glu Val Asp Arg Ile Lys Glu Ala Val Arg Ala Lys Asn Met
 900 905 910
 Ala Arg Arg Ala His Ser Ala Gln Ile Ala Lys Pro Ile Arg Pro Gly
 915 920 925
 His Tyr Pro Ala Ser Ser Pro Thr Ala Val His Ala Val Arg Gly Gly
 930 935 940
 Gly Gly Gly Ser Ser Asn Ser Thr His Tyr Gln Lys
 945 950 955

<210> 18
 <211> 815
 <212> PRT
 <213> Caenorhabditis elegans

<400> 18

Met	Glu	Pro	Arg	Thr	Asp	Gly	Ala	Glu	Cys	Gly	Val	Gln	Val	Phe	Cys
1									5	10					15
Arg	Ile	Arg	Pro	Leu	Asn	Lys	Thr	Glu	Glu	Lys	Asn	Ala	Asp	Arg	Phe
									20	25					30
Leu	Pro	Lys	Phe	Pro	Ser	Glu	Asp	Ser	Ile	Ser	Leu	Gly	Gly	Lys	Val
									35	40					45
Tyr	Val	Phe	Asp	Lys	Val	Phe	Lys	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val
									50	55					60
Tyr	Lys	Gly	Ala	Ala	Tyr	His	Ile	Val	Gln	Asp	Val	Leu	Ser	Gly	Tyr
									65	70					80
Asn	Gly	Thr	Val	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His
									85	90					95
Thr	Met	Glu	Gly	Val	Ile	Gly	Asp	Asn	Gly	Leu	Ser	Gly	Ile	Ile	Pro
									100	105					110
Arg	Ile	Val	Ala	Asp	Ile	Phe	Asn	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn
									115	120					125
Leu	Gln	Phe	His	Ile	Lys	Val	Ser	Tyr	Tyr	Glu	Ile	Tyr	Asn	Glu	Lys
									130	135					140
Ile	Arg	Asp	Leu	Leu	Asp	Pro	Glu	Lys	Val	Asn	Leu	Ser	Ile	His	Glu
									145	150					160
Asp	Lys	Asn	Arg	Val	Pro	Tyr	Val	Lys	Gly	Ala	Thr	Glu	Arg	Phe	Val
									165	170					175
Gly	Gly	Pro	Asp	Glu	Val	Leu	Gln	Ala	Ile	Glu	Asp	Gly	Lys	Ser	Asn

180	185	190
Arg Met Val Ala Val Thr Asn Met	Asn Glu His Ser Ser	Arg Ser His
195	200	205
Ser Val Phe Leu Ile Thr Val Lys Gln Glu His Gln	Thr Thr Lys Lys	
210	215	220
Gln Leu Thr Gly Lys Leu Tyr Leu Val Asp Leu Ala	Gly Ser Glu Lys	
225	230	235
Val Ser Lys Thr Gly Ala Gln Gly Thr Val Leu Glu Glu	Ala Lys Asn	
245	250	255
Ile Asn Lys Ser Leu Thr Ala Leu Gly Ile Val Ile Ser Ala	Leu Ala	
260	265	270
Glu Gly Thr Lys Ser His Val Pro Tyr Arg Asp Ser	Lys Leu Thr Arg	
275	280	285
Ile Leu Gln Glu Ser Leu Gly Gly Asn Ser Arg Thr	Thr Thr Val Ile Ile	
290	295	300
Cys Ala Ser Pro Ser His Phe Asn Glu Ala Glu	Thr Lys Ser Thr Leu	
305	310	315
Leu Phe Gly Ala Arg Ala Lys Thr Ile Lys Asn Val Val	Gln Ile Asn	
325	330	335
Glu Glu Leu Thr Ala Glu Glu Trp Lys Arg Arg Tyr	Glu Lys Glu Lys	
340	345	350
Glu Lys Asn Thr Arg Leu Ala Ala Leu Leu Gln Ala	Ala Ala Leu Glu	
355	360	365
Leu Ser Arg Trp Arg Ala Gly Glu Ser Val Ser	Glu Val Glu Trp Val	
370	375	380
Asn Leu Ser Asp Ser Ala Gln Met Ala Val Ser	Glu Val Ser Gly Gly	
385	390	395
Ser Thr Pro Leu Met Glu Arg Ser Ile Ala Pro Ala Pro	Pro Met Leu	
405	410	415
Thr Ser Thr Thr Gly Pro Ile Thr Asp Glu Glu Lys Lys	Lys Tyr Glu	
420	425	430
Glu Glu Arg Val Lys Leu Tyr Gln Gln Leu Asp Glu	Lys Asp Asp Glu	
435	440	445
Ile Gln Lys Val Ser Gln Glu Leu Glu Lys Leu Arg	Gln Gln Val Leu	
450	455	460
Leu Gln Glu Glu Ala Leu Gly Thr Met Arg Glu Asn Glu	Glu Leu Ile	
465	470	475
Arg Glu Glu Asn Asn Arg Phe Gln Lys Glu Ala Glu Asp	Lys Gln Gln	
485	490	495
Glu Gly Lys Glu Met Met Thr Ala Leu Glu Glu Ile Ala	Val Asn Leu	
500	505	510
Asp Val Arg Gln Ala Glu Cys Glu Lys Leu Lys Arg	Glu Leu Glu Val	
515	520	525
Val Gln Glu Asp Asn Gln Ser Leu Glu Asp Arg Met	Asn Gln Ala Thr	
530	535	540
Ser Leu Leu Asn Ala His Leu Asp Glu Cys Gly	Pro Lys Ile Arg His	
545	550	555
Phe Lys Glu Gly Ile Tyr Asn Val Ile Arg Glu Phe Asn	Ile Ala Asp	
565	570	575
Ile Ala Ser Gln Asn Asp Gln Leu Pro Asp His Asp	Leu Asn His	
580	585	590
Val Arg Ile Gly Val Ser Lys Leu Phe Ser Glu Tyr	Ser Ala Ala Lys	
595	600	605
Glu Ser Ser Thr Ala Ala Glu His Asp Ala Glu Ala	Lys Leu Ala Ala	
610	615	620
Asp Val Ala Arg Val Glu Ser Gly Gln Asp Ala	Gly Arg Met Lys Gln	
625	630	635
Leu Leu Val Lys Asp Gln Ala Ala Lys Glu Ile Lys	Pro Leu Thr Asp	
645	650	655
Arg Val Asn Met Glu Leu Thr Thr Leu Lys Asn Leu	Lys Lys Glu Phe	
660	665	670
Met Arg Val Leu Val Ala Arg Cys Gln Ala Asn Gln	Asp Thr Glu Gly	

675	680	685
Glu Asp Ser Leu Ser Gly Pro Ala Gln Lys Gln Arg Ile Gln Phe Leu		
690	695	700
Glu Asn Asn Leu Asp Lys Leu Thr Lys Val His Lys Gln Leu Val Arg		
705	710	715
Asp Asn Ala Asp Leu Arg Val Glu Leu Pro Lys Met Glu Ala Arg Leu		
725	730	735
Arg Gly Arg Glu Asp Arg Ile Lys Ile Leu Glu Thr Ala Leu Arg Asp		
740	745	750
Ser Lys Gln Arg Ser Gln Ala Glu Arg Lys Lys Tyr Gln Gln Glu Val		
755	760	765
Glu Arg Ile Lys Glu Ala Val Arg Gln Arg Asn Met Arg Arg Met Asn		
770	775	780
Ala Pro Gln Ile Val Lys Pro Ile Arg Pro Gly Gln Val Tyr Thr Ser		
785	790	795
Pro Ser Ala Gly Met Ser Gln Gly Ala Pro Asn Gly Ser Asn Ala		
805	810	815

<210> 19

<211> 975

<212> PRT

<213> Drosophila melanogaster

<400> 19

Met Ser Ala Glu Arg Glu Ile Pro Ala Glu Asp Ser Ile Lys Val Val			
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Cys Arg Phe Arg Pro Leu Asn Asp Ser Glu Glu Lys Ala Gly Ser Lys			
20	25	30	
Phe Val Val Lys Phe Pro Asn Asn Val Glu Glu Asn Cys Ile Ser Ile			
35	40	45	
Ala Gly Lys Val Tyr Leu Phe Asp Lys Val Phe Lys Pro Asn Ala Ser			
50	55	60	
Gln Glu Lys Val Tyr Asn Glu Ala Ala Lys Ser Ile Val Thr Asp Val			
65	70	75	80
Leu Ala Gly Tyr Asn Gly Thr Ile Phe Ala Tyr Gly Gln Thr Ser Ser			
85	90	95	
Gly Lys Thr His Thr Met Glu Gly Val Ile Gly Asp Ser Val Lys Gln			
100	105	110	
Gly Ile Ile Pro Arg Ile Val Asn Asp Ile Phe Asn His Ile Tyr Ala			
115	120	125	
Met Glu Val Asn Leu Glu Phe His Ile Lys Val Ser Tyr Tyr Glu Ile			
130	135	140	
Tyr Met Asp Lys Ile Arg Asp Leu Leu Asp Val Ser Lys Val Asn Leu			
145	150	155	160
Ser Val His Glu Asp Lys Asn Arg Val Pro Tyr Val Lys Gly Ala Thr			
165	170	175	
Glu Arg Phe Val Ser Ser Pro Glu Asp Val Phe Glu Val Ile Glu Glu			
180	185	190	
Gly Lys Ser Asn Arg His Ile Ala Val Thr Asn Met Asn Glu His Ser			
195	200	205	
Ser Arg Ser His Ser Val Phe Leu Ile Asn Val Lys Gln Glu Asn Leu			
210	215	220	
Glu Asn Gln Lys Lys Leu Ser Gly Lys Leu Tyr Leu Val Asp Leu Ala			
225	230	235	240
Gly Ser Glu Lys Val Ser Lys Thr Gly Ala Glu Gly Thr Val Leu Asp			
245	250	255	
Glu Ala Lys Asn Ile Asn Lys Ser Leu Ser Ala Leu Gly Asn Val Ile			
260	265	270	
Ser Ala Leu Ala Asp Gly Asn Lys Thr His Ile Pro Tyr Arg Asp Ser			
275	280	285	
Lys Leu Thr Arg Ile Leu Gln Glu Ser Leu Gly Gly Asn Ala Arg Thr			
290	295	300	

Thr Ile Val Ile Cys Cys Ser Pro Ala Ser Phe Asn Glu Ser Glu Thr
 305 310 315 320
 Lys Ser Thr Leu Asp Phe Gly Arg Arg Ala Lys Thr Val Lys Asn Val
 325 330 335
 Val Cys Val Asn Glu Glu Leu Thr Ala Glu Glu Trp Lys Arg Arg Tyr
 340 345 350
 Glu Lys Glu Lys Asn Ala Arg Leu Lys Gly Lys Val Glu Lys
 355 360 365
 Leu Glu Ile Glu Leu Ala Arg Trp Arg Ala Gly Glu Thr Val Lys Ala
 370 375 380
 Glu Glu Gln Ile Asn Met Glu Asp Leu Met Glu Ala Ser Thr Pro Asn
 385 390 395 400
 Leu Glu Val Glu Ala Ala Gln Thr Ala Ala Ala Glu Ala Ala Leu Ala
 405 410 415
 Ala Gln Arg Thr Ala Leu Ala Asn Met Ser Ala Ser Val Ala Val Asn
 420 425 430
 Glu Gln Ala Arg Leu Ala Thr Glu Cys Glu Arg Leu Tyr Gln Gln Leu
 435 440 445
 Asp Asp Lys Asp Glu Glu Ile Asn Gln Gln Ser Gln Tyr Ala Glu Gln
 450 455 460
 Leu Lys Glu Gln Val Met Glu Gln Glu Glu Leu Ile Ala Asn Ala Arg
 465 470 475 480
 Arg Glu Tyr Glu Thr Leu Gln Ser Glu Met Ala Arg Ile Gln Gln Glu
 485 490 495
 Asn Glu Ser Ala Lys Glu Glu Val Lys Glu Val Leu Gln Ala Leu Glu
 500 505 510
 Glu Leu Ala Val Asn Tyr Asp Gln Lys Ser Gln Glu Ile Asp Asn Lys
 515 520 525
 Asn Lys Asp Ile Asp Ala Leu Asn Glu Leu Gln Gln Lys Gln Ser
 530 535 540
 Val Phe Asn Ala Ala Ser Thr Glu Leu Gln Leu Lys Asp Met Ser
 545 550 555 560
 Ser His Gln Lys Lys Arg Ile Thr Glu Met Leu Thr Asn Leu Leu Arg
 565 570 575
 Asp Leu Gly Glu Val Gly Gln Ala Ile Ala Pro Gly Glu Ser Ser Ile
 580 585 590
 Asp Leu Lys Met Ser Ala Leu Ala Gly Thr Asp Ala Ser Lys Val Glu
 595 600 605
 Glu Asp Phe Thr Met Ala Arg Leu Phe Ile Ser Lys Met Lys Thr Glu
 610 615 620
 Ala Lys Asn Ile Ala Gln Arg Cys Ser Asn Met Glu Thr Gln Gln Ala
 625 630 635 640
 Asp Ser Asn Lys Lys Ile Ser Glu Tyr Glu Lys Asp Leu Gly Glu Tyr
 645 650 655
 Arg Leu Leu Ile Ser Gln His Glu Ala Arg Met Lys Ser Leu Gln Glu
 660 665 670
 Ser Met Arg Glu Ala Glu Asn Lys Lys Arg Thr Leu Glu Glu Gln Ile
 675 680 685
 Asp Ser Leu Arg Glu Glu Cys Ala Lys Leu Lys Ala Ala Glu His Val
 690 695 700
 Ser Ala Val Asn Ala Glu Glu Lys Gln Arg Ala Glu Glu Leu Arg Ser
 705 710 715 720
 Met Phe Asp Ser Gln Met Asp Glu Leu Arg Glu Ala His Thr Arg Gln
 725 730 735
 Val Ser Glu Leu Arg Asp Glu Ile Ala Ala Lys Gln His Glu Met Asp
 740 745 750
 Glu Met Lys Asp Val His Gln Lys Leu Leu Ala His Gln Gln Met
 755 760 765
 Thr Ala Asp Tyr Glu Lys Val Arg Gln Glu Asp Ala Glu Lys Ser Ser
 770 775 780
 Glu Leu Gln Asn Ile Ile Leu Thr Asn Glu Arg Arg Glu Gln Ala Arg
 785 790 795 800

Lys	Asp	Leu	Lys	Gly	Leu	Glu	Asp	Thr	Val	Ala	Lys	Glu	Leu	Gln	Thr
					805				810					815	
Leu	His	Asn	Leu	Arg	Lys	Leu	Phe	Val	Gln	Asp	Leu	Gln	Gln	Arg	Ile
					820				825					830	
Arg	Lys	Asn	Val	Val	Asn	Glu	Glu	Ser	Glu	Glu	Asp	Gly	Gly	Ser	Leu
					835				840					845	
Ala	Gln	Lys	Gln	Lys	Ile	Ser	Phe	Leu	Glu	Asn	Asn	Leu	Asp	Gln	Leu
					850				855					860	
Thr	Lys	Val	His	Lys	Gln	Leu	Val	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys
					865				870					875	
Glu	Leu	Pro	Lys	Leu	Glu	Lys	Arg	Leu	Arg	Cys	Thr	Met	Glu	Arg	Val
					885				890					895	
Lys	Ala	Leu	Glu	Thr	Ala	Leu	Lys	Glu	Ala	Lys	Glu	Gly	Ala	Met	Arg
					900				905					910	
Asp	Arg	Lys	Arg	Tyr	Gln	Tyr	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val
					915				920					925	
Arg	Gln	Lys	His	Leu	Gly	Arg	Arg	Gly	Pro	Gln	Ala	Gln	Ile	Ala	Lys
					930				935					940	
Pro	Ile	Arg	Ser	Gly	Gln	Gly	Ala	Ile	Ala	Ile	Arg	Gly	Gly	Gly	Ala
					945				950					955	
Val	Gly	Gly	Pro	Ser	Pro	Leu	Ala	Gln	Val	Asn	Pro	Val	Asn	Ser	
					965				970					975	

<210> 20

<211> 963

<212> PRT

<213> Homo sapiens

<400> 20

Met	Ala	Asp	Leu	Ala	Glu	Cys	Asn	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
1					5				10					15	
Pro	Leu	Asn	Glu	Ser	Glu	Val	Asn	Arg	Gly	Asp	Lys	Tyr	Ile	Ala	Lys
					20				25					30	
Phe	Gln	Gly	Glu	Asp	Thr	Val	Val	Ile	Ala	Ser	Lys	Pro	Tyr	Ala	Phe
					35				40					45	
Asp	Arg	Val	Phe	Gln	Ser	Ser	Thr	Ser	Gln	Glu	Gln	Val	Tyr	Asn	Asp
					50				55					60	
Cys	Ala	Lys	Lys	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly	Thr
					65				70					75	
Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met	Glu
					85				90					95	
Gly	Lys	Leu	His	Asp	Pro	Glu	Gly	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val
					100				105					110	
Gln	Asp	Ile	Phe	Asn	Tyr	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu	Phe
					115				120					125	
His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg	Asp
					130				135					140	
Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn
					145				150					155	
Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Cys	Ser	Pro
					165				170					175	
Asp	Glu	Val	Met	Asp	Thr	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His	Val
					180				185					190	
Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile	Phe
					195				200					205	
Leu	Ile	Asn	Val	Lys	Gln	Glu	Asn	Thr	Gln	Thr	Glu	Gln	Lys	Leu	Ser
					210				215					220	
Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser	Lys
					225				230					235	
Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn	Lys
					245				250					255	
Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly	Ser

	260	265	270												
Thr	Tyr	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu	Gln	Asp
			275				280				285				
Ser	Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Ile	Val	Ile	Cys	Cys	Ser	Pro
			290				295				300				
Ser	Ser	Tyr	Asn	Glu	Ser	Glu	Thr	Lys	Ser	Thr	Leu	Leu	Phe	Gly	Gln
			305				310				315				320
Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Val	Cys	Val	Asn	Val	Glu	Leu	Thr
			325				330				335				
Ala	Glu	Gln	Trp	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys	Asn	Lys	
			340				345				350				
Ile	Leu	Arg	Asn	Thr	Ile	Gln	Trp	Leu	Glu	Asn	Glu	Leu	Asn	Arg	Trp
			355				360				365				
Arg	Asn	Gly	Glu	Thr	Val	Pro	Ile	Asp	Glu	Gln	Phe	Asp	Lys	Glu	Lys
			370				375				380				
Ala	Asn	Leu	Glu	Ala	Phe	Thr	Val	Asp	Lys	Asp	Ile	Thr	Leu	Thr	Asn
			385				390				395				400
Asp	Lys	Pro	Ala	Thr	Ala	Ile	Gly	Val	Ile	Gly	Asn	Phe	Thr	Asp	Ala
			405				410				415				
Glu	Arg	Arg	Lys	Cys	Glu	Glu	Glu	Ile	Ala	Lys	Leu	Tyr	Lys	Gln	Leu
			420				425				430				
Asp	Asp	Lys	Asp	Glu	Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Val	Glu	Lys
			435				440				445				
Leu	Lys	Thr	Gln	Met	Leu	Asp	Gln	Glu	Glu	Leu	Leu	Ala	Ser	Thr	Arg
			450				455				460				
Arg	Asp	Gln	Asp	Asn	Met	Gln	Ala	Glu	Leu	Asn	Arg	Leu	Gln	Ala	Glu
			465				470				475				480
Asn	Asp	Ala	Ser	Lys	Glu	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu
			485				490				495				
Glu	Leu	Ala	Val	Asn	Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Asp	Lys
			500				505				510				
Thr	Lys	Glu	Tyr	Glu	Leu	Leu	Ser	Asp	Glu	Leu	Asn	Gln	Lys	Ser	Ala
			515				520				525				
Thr	Leu	Ala	Ser	Ile	Asp	Ala	Glu	Leu	Gln	Lys	Leu	Lys	Glu	Met	Thr
			530				535				540				
Asn	His	Gln	Lys	Lys	Arg	Ala	Ala	Glu	Met	Met	Ala	Ser	Leu	Leu	Lys
			545				550				555				560
Asp	Leu	Ala	Glu	Ile	Gly	Ile	Ala	Val	Gly	Asn	Asn	Asp	Val	Lys	Gln
			565				570				575				
Pro	Glu	Gly	Thr	Gly	Met	Ile	Asp	Glu	Glu	Phe	Thr	Val	Ala	Arg	Leu
			580				585				590				
Tyr	Ile	Ser	Lys	Met	Lys	Ser	Glu	Val	Lys	Thr	Met	Val	Lys	Arg	Cys
			595				600				605				
Lys	Gln	Leu	Glu	Ser	Thr	Gln	Thr	Glu	Ser	Asn	Lys	Lys	Met	Glu	Glu
			610				615				620				
Asn	Glu	Lys	Glu	Leu	Ala	Ala	Cys	Gln	Leu	Arg	Ile	Ser	Gln	His	Glu
			625				630				635				640
Ala	Lys	Ile	Lys	Ser	Leu	Thr	Glu	Tyr	Leu	Gln	Asn	Val	Glu	Gln	Lys
			645				650				655				
Lys	Arg	Gln	Leu	Glu	Glu	Ser	Val	Asp	Ala	Leu	Ser	Glu	Glu	Leu	Val
			660				665				670				
Gln	Leu	Arg	Ala	Gln	Glu	Lys	Val	His	Glu	Met	Glu	Lys	Glu	His	Leu
			675				680				685				
Asn	Lys	Val	Gln	Thr	Ala	Asn	Glu	Val	Lys	Gln	Ala	Val	Glu	Gln	Gln
			690				695				700				
Ile	Gln	Ser	His	Arg	Glu	Thr	His	Gln	Lys	Gln	Ile	Ser	Ser	Leu	Arg
			705				710				715				720
Asp	Glu	Val	Glu	Ala	Lys	Ala	Lys	Leu	Ile	Thr	Asp	Leu	Gln	Asp	Gln
			725				730				735				
Asn	Gln	Lys	Met	Met	Leu	Glu	Gln	Glu	Arg	Leu	Arg	Val	Glu	His	Glu
			740				745				750				
Lys	Leu	Lys	Ala	Thr	Asp	Gln	Glu	Lys	Ser	Arg	Lys	Leu	His	Glu	Leu

755	760	765
Thr Val Met Gln Asp Arg Arg Glu Gln Ala Arg Gln Asp Leu Lys Gly		
770	775	780
Leu Glu Glu Thr Val Ala Lys Glu Leu Gln Thr Leu His Asn Leu Arg		
785	790	795
Lys Leu Phe Val Gln Asp Leu Ala Thr Arg Val Lys Lys Ser Ala Glu		800
805	810	815
Ile Asp Ser Asp Asp Thr Gly Gly Ser Ala Ala Gln Lys Gln Lys Ile		
820	825	830
Ser Phe Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys Gln		
835	840	845
Leu Val Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu Glu		
850	855	860
Lys Arg Leu Arg Ala Thr Ala Glu Arg Val Lys Ala Leu Glu Ser Ala		
865	870	875
Leu Lys Glu Ala Lys Glu Asn Ala Ser Arg Asp Arg Lys Arg Tyr Gln		
885	890	895
Gln Glu Val Asp Arg Ile Lys Glu Ala Val Arg Ser Lys Asn Met Ala		
900	905	910
Arg Arg Gly His Ser Ala Gln Ile Ala Lys Pro Ile Arg Pro Gly Gln		
915	920	925
His Pro Ala Ala Ser Pro Thr His Pro Ser Ala Ile Arg Gly Gly Gly		
930	935	940
Ala Phe Val Gln Asn Ser Gln Pro Val Ala Val Arg Gly Gly Gly Gly		
945	950	955
Lys Gln Val		960

<210> 21
<211> 967
<212> PRT
<213> Loligo pealeii

<400> 21		
Met Asp Val Ala Ser Glu Cys Asn Ile Lys Val Ile Cys Arg Val Arg		
1	5	10
Pro Leu Asn Glu Ala Glu Glu Arg Ala Gly Ser Lys Phe Ile Leu Lys		
20	25	30
Phe Pro Thr Asp Asp Ser Ile Ser Ile Ala Gly Lys Val Phe Val Phe		
35	40	45
Asp Lys Val Leu Lys Pro Asn Val Ser Gln Glu Tyr Val Tyr Asn Val		
50	55	60
Gly Ala Lys Pro Ile Val Ala Asp Val Leu Ser Gly Cys Asn Gly Thr		
65	70	75
Ile Phe Ala Tyr Gly Gln Thr Ser Ser Gly Lys Thr His Thr Met Glu		
85	90	95
Gly Val Leu Asp Lys Pro Ser Met His Gly Ile Ile Pro Arg Ile Val		
100	105	110
Gln Asp Ile Phe Asn Tyr Ile Tyr Gly Met Asp Glu Asn Leu Glu Phe		
115	120	125
His Ile Lys Ile Ser Tyr Tyr Glu Ile Tyr Leu Asp Lys Ile Arg Asp		
130	135	140
Leu Leu Asp Val Thr Lys Thr Asn Leu Ala Val His Glu Asp Lys Asn		
145	150	155
Arg Val Pro Phe Val Lys Gly Ala Thr Glu Arg Phe Val Ser Ser Pro		
165	170	175
Glu Glu Val Met Glu Val Ile Asp Glu Gly Lys Asn Asn Arg His Val		
180	185	190
Ala Val Thr Asn Met Asn Glu His Ser Ser Arg Ser His Ser Val Phe		
195	200	205
Leu Ile Asn Val Lys Gln Glu Asn Val Glu Thr Gln Lys Lys Leu Ser		
210	215	220

Gly Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys Val Ser Lys
 225 230 235 240
 Thr Gly Ala Glu Gly Ala Val Leu Asp Glu Ala Lys Asn Ile Asn Lys
 245 250 255
 Ser Leu Ser Ala Leu Gly Asn Val Ile Ser Ala Leu Ala Asp Gly Asn
 260 265 270
 Lys Ser His Val Pro Tyr Arg Asp Ser Lys Leu Thr Arg Ile Leu Gln
 275 280 285
 Glu Ser Leu Gly Gly Asn Ala Arg Thr Thr Met Val Ile Cys Cys Ser
 290 295 300
 Pro Ala Ser Tyr Asn Glu Ser Glu Thr Lys Ser Thr Leu Leu Phe Gly
 305 310 315 320
 Gln Arg Ala Lys Thr Ile Lys Asn Val Val Ser Val Asn Glu Glu Leu
 325 330 335
 Thr Ala Asp Glu Trp Lys Arg Arg Tyr Glu Lys Glu Lys Glu Arg Val
 340 345 350
 Thr Lys Leu Lys Ala Thr Met Ala Lys Leu Glu Ala Glu Leu Gln Arg
 355 360 365
 Trp Arg Thr Gly Gln Ala Val Ser Val Glu Glu Gln Val Asp Leu Lys
 370 375 380
 Glu Asp Val Pro Ala Glu Ser Pro Ala Thr Ser Thr Thr Ser Leu Ala
 385 390 395 400
 Gly Gly Leu Ile Ala Ser Met Asn Glu Gly Asp Arg Thr Gln Leu Glu
 405 410 415
 Glu Glu Arg Leu Lys Leu Tyr Gln Gln Leu Asp Asp Lys Asp Asp Glu
 420 425 430
 Ile Asn Asn Gln Ser Gln Leu Ile Glu Lys Leu Lys Glu Gln Met Met
 435 440 445
 Glu Gln Glu Asp Leu Ile Ala Gln Ser Arg Arg Asp Tyr Glu Asn Leu
 450 455 460
 Gln Gln Asp Met Ser Arg Ile Gln Ala Asp Asn Glu Ser Ala Lys Asp
 465 470 475 480
 Glu Val Lys Glu Val Leu Gln Ala Leu Glu Glu Leu Ala Met Asn Tyr
 485 490 495
 Asp Gln Lys Ser Gln Glu Val Glu Asp Lys Asn Lys Glu Asn Glu Asn
 500 505 510
 Leu Ser Glu Glu Leu Asn Gln Lys Leu Ser Thr Leu Asn Ser Leu Gln
 515 520 525
 Asn Glu Leu Asp Gln Leu Lys Asp Ser Ser Met His His Arg Lys Arg
 530 535 540
 Val Thr Asp Met Met Ile Asn Leu Leu Lys Asp Leu Gly Asp Ile Gly
 545 550 555 560
 Thr Ile Val Gly Gly Asn Ala Ala Glu Thr Lys Pro Thr Ala Gly Ser
 565 570 575
 Gly Glu Lys Ile Glu Glu Glu Phe Thr Val Ala Arg Leu Tyr Ile Ser
 580 585 590
 Lys Met Lys Ser Glu Val Lys Thr Leu Val Ser Arg Asn Asn Gln Leu
 595 600 605
 Glu Asn Thr Gln Gln Asp Asn Phe Lys Lys Ile Glu Thr His Glu Lys
 610 615 620
 Asp Leu Ser Asn Cys Lys Leu Leu Ile Gln Gln His Glu Ala Lys Met
 625 630 635 640
 Ala Ser Leu Gln Glu Ala Ile Lys Asp Ser Glu Asn Lys Lys Arg Met
 645 650 655
 Leu Glu Asp Asn Val Asp Ser Leu Asn Glu Glu Tyr Ala Lys Leu Lys
 660 665 670
 Ala Gln Glu Gln Met His Leu Ala Ala Leu Ser Glu Arg Glu Lys Glu
 675 680 685
 Thr Ser Gln Ala Ser Glu Thr Arg Glu Val Leu Glu Lys Gln Met Glu
 690 695 700
 Met His Arg Glu Gln His Gln Lys Gln Leu Gln Ser Leu Arg Asp Glu
 705 710 715 720

Ile Ser Glu Lys Gln Ala Thr Val Asp Asn Leu Lys Asp Asp Asn Gln
 725 730 735
 Arg Leu Ser Leu Ala Leu Glu Lys Leu Gln Ala Asp Tyr Asp Lys Leu
 740 745 750
 Lys Gln Glu Glu Val Glu Lys Ala Ala Lys Leu Ala Asp Leu Ser Leu
 755 760 765
 Gln Ile Asp Arg Arg Glu Gln Ala Lys Gln Asp Leu Lys Gly Leu Glu
 770 775 780
 Glu Thr Val Ala Lys Glu Leu Gln Thr Leu His Asn Leu Arg Lys Leu
 785 790 795 800
 Phe Val Gln Asp Leu Gln Asn Lys Val Lys Lys Ser Cys Ser Lys Thr
 805 810 815
 Glu Glu Glu Asp Glu Asp Thr Gly Gly Asn Ala Ala Gln Lys Gln Lys
 820 825 830
 Ile Ser Phe Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys
 835 840 845
 Gln Leu Val Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu
 850 855 860
 Glu Lys Arg Leu Arg Ala Thr Met Glu Arg Val Lys Ser Leu Glu Ser
 865 870 875 880
 Ala Leu Lys Asp Ala Lys Glu Gly Ala Met Arg Asp Arg Lys Arg Tyr
 885 890 895
 Gln His Glu Val Asp Arg Ile Lys Glu Ala Val Arg Gln Lys Asn Leu
 900 905 910
 Ala Arg Arg Gly His Ala Ala Gln Ile Ala Lys Pro Ile Arg Pro Gly
 915 920 925
 Gln His Gln Ser Val Ser Pro Ala Gln Ala Ala Ala Ile Arg Gly Gly
 930 935 940
 Gly Gly Leu Ser Gln Asn Gly Pro Met Ile Thr Ser Thr Pro Ile Arg
 945 950 955 960
 Met Ala Pro Glu Ser Lys Ala
 965

<210> 22
 <211> 963
 <212> PRT
 <213> Mus musculus

<400> 22

Met	Ala	Asp	Pro	Ala	Glu	Cys	Asn	Ile	Lys	Val	Met	Cys	Arg	Phe	Arg
1															15
Pro	Leu	Asn	Glu	Ser	Glu	Val	Asn	Arg	Gly	Asp	Lys	Tyr	Val	Ala	Lys
															30
Phe	Gln	Gly	Glu	Asp	Thr	Val	Val	Ile	Ala	Ser	Lys	Pro	Tyr	Ala	Phe
															45
Asp	Arg	Val	Phe	Gln	Ser	Ser	Thr	Ser	Gln	Glu	Gln	Val	Tyr	Asn	Asp
															60
Cys	Ala	Lys	Lys	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly	Thr
															80
Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met	Glu
															95
Gly	Lys	Leu	His	Asp	Pro	Glu	Gly	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val
															110
Gln	Asp	Ile	Phe	Asn	Tyr	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu	Phe
															125
His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg	Asp
															140
Leu	Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn
															160
Arg	Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Cys	Ser	Pro
															175
Asp	Glu	Val	Met	Asp	Thr	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His	Val

	180	185	190
Ala Val Thr Asn Met Asn Glu His Ser Ser Arg Ser His Ser Ile Phe			
195	200	205	
Leu Ile Asn Val Lys Gln Glu Asn Thr Gln Thr Glu Gln Lys Leu Ser			
210	215	220	
Gly Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys Val Ser Lys			
225	230	235	240
Thr Gly Ala Glu Gly Ala Val Leu Asp Glu Ala Lys Asn Ile Asn Lys			
245	250	255	
Ser Leu Ser Ala Leu Gly Asn Val Ile Ser Ala Leu Ala Glu Gly Ser			
260	265	270	
Thr Tyr Val Pro Tyr Arg Asp Ser Lys Met Thr Arg Ile Leu Gln Asp			
275	280	285	
Ser Leu Gly Gly Asn Cys Arg Thr Thr Ile Val Ile Cys Cys Ser Pro			
290	295	300	
Ser Ser Tyr Asn Glu Ser Glu Thr Lys Ser Thr Leu Leu Phe Gly Gln			
305	310	315	320
Arg Ala Lys Thr Ile Lys Asn Thr Val Cys Val Asn Val Glu Leu Thr			
325	330	335	
Ala Glu Gln Trp Lys Lys Tyr Glu Lys Glu Lys Glu Lys Asn Lys			
340	345	350	
Thr Leu Arg Asn Thr Ile Gln Trp Leu Glu Asn Glu Leu Asn Arg Trp			
355	360	365	
Arg Asn Gly Glu Thr Val Pro Ile Asp Glu Gln Phe Asp Lys Glu Lys			
370	375	380	
Ala Asn Leu Glu Ala Phe Thr Ala Asp Lys Asp Ile Ala Ile Thr Ser			
385	390	395	400
Asp Lys Gly Ala Ala Val Gly Met Ala Gly Ser Phe Thr Asp Ala			
405	410	415	
Glu Arg Arg Lys Cys Glu Glu Glu Leu Ala Lys Leu Tyr Lys Gln Leu			
420	425	430	
Asp Asp Lys Asp Glu Glu Ile Asn Gln Gln Ser Gln Leu Val Glu Lys			
435	440	445	
Leu Lys Thr Gln Met Leu Asp Gln Glu Glu Leu Leu Ala Ser Thr Arg			
450	455	460	
Arg Asp Gln Asp Asn Met Gln Ala Glu Leu Asn Arg Leu Gln Ala Glu			
465	470	475	480
Asn Asp Ala Ser Lys Glu Glu Val Lys Glu Val Leu Gln Ala Leu Glu			
485	490	495	
Glu Leu Ala Val Asn Tyr Asp Gln Lys Ser Gln Glu Val Glu Asp Lys			
500	505	510	
Thr Lys Glu Tyr Glu Leu Leu Thr Asp Glu Phe Asn Gln Lys Ser Ala			
515	520	525	
Thr Leu Ala Ser Ile Asp Ala Glu Leu Gln Lys Leu Lys Glu Met Thr			
530	535	540	
Asn His Gln Lys Lys Arg Ala Ala Glu Met Met Ala Ser Leu Leu Lys			
545	550	555	560
Asp Leu Ala Glu Ile Gly Ile Ala Val Gly Asn Asn Asp Val Lys Gln			
565	570	575	
Pro Glu Gly Thr Gly Met Ile Asp Glu Glu Phe Thr Val Ala Arg Leu			
580	585	590	
Tyr Ile Ser Lys Met Lys Ser Glu Val Lys Thr Met Val Lys Arg Cys			
595	600	605	
Lys Gln Leu Glu Ser Thr Gln Thr Glu Ser Asn Lys Lys Met Glu Glu			
610	615	620	
Asn Glu Lys Glu Leu Ala Ala Cys Gln Leu Arg Ile Ser Gln His Glu			
625	630	635	640
Ala Lys Ile Lys Ser Leu Thr Glu Tyr Leu Gln Asn Asp Glu Gln Lys			
645	650	655	
Lys Arg Gln Leu Glu Glu Ser Leu Asp Ser Leu Gly Glu Glu Leu Val			
660	665	670	
Gln Leu Arg Ala Gln Glu Lys Val His Glu Met Glu Lys Glu His Leu			

675	680	685
Asn Lys Val Gln Thr Ala Asn Glu Val Lys Gln Ala Val Glu Gln Gln		
690	695	700
Ile Gln Ser His Arg Glu Thr His Gln Lys Gln Ile Ser Ser Leu Arg		
705	710	715
Asp Glu Val Glu Ala Lys Glu Lys Leu Ile Thr Asp Leu Gln Asp Gln		
725	730	735
Asn Gln Lys Met Val Leu Glu Thr Glu Arg Leu Arg Val Glu His Glu		
740	745	750
Arg Leu Lys Ala Thr Asp Gln Glu Lys Ser Arg Lys Leu His Glu Leu		
755	760	765
Thr Val Met Gln Asp Arg Arg Glu Gln Ala Arg Gln Asp Leu Lys Gly		
770	775	780
Leu Glu Glu Thr Val Ala Lys Glu Leu Gln Thr Leu His Asn Leu Arg		
785	790	795
Lys Leu Phe Val Gln Asp Leu Ala Thr Arg Val Lys Lys Ser Ala Glu		
805	810	815
Val Asp Ser Asp Asp Thr Gly Gly Ser Ala Ala Gln Lys Gln Lys Ile		
820	825	830
Ser Phe Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys Gln		
835	840	845
Leu Val Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu Glu		
850	855	860
Phe Arg Leu Arg Ala Thr Ala Glu Arg Val Lys Ala Leu Glu Ser Ala		
865	870	875
Leu Lys Glu Ala Lys Glu Asn Ala Ser Arg Asp Arg Lys Arg Tyr Gln		
885	890	895
Gln Glu Val Asp Arg Ile Lys Glu Ala Val Arg Ser Lys Asn Met Ala		
900	905	910
Arg Arg Gly His Ser Ala Gln Ile Ala Lys Pro Ile Arg Pro Gly Gln		
915	920	925
His Pro Ala Ala Ser Pro Thr His Pro Gly Thr Val Arg Gly Gly Gly		
930	935	940
Ser Phe Val Gln Asn Asn Gln Pro Val Gly Leu Arg Gly Gly Gly Gly		
945	950	955
Lys Gln Ser		

<210> 23
<211> 928
<212> PRT
<213> Neurospora crassa

<400> 23		
Met Ser Ser Ser Ala Asn Ser Ile Lys Val Val Ala Arg Phe Arg Pro		
1	5	10
Gln Asn Arg Val Glu Ile Glu Ser Gly Gly Gln Pro Ile Val Thr Phe		
20	25	30
Gln Gly Pro Asp Thr Cys Thr Val Asp Ser Lys Glu Ala Gln Gly Ser		
35	40	45
Phe Thr Phe Asp Arg Val Phe Asp Met Ser Cys Lys Gln Ser Asp Ile		
50	55	60
Phe Asp Phe Ser Ile Lys Pro Thr Val Asp Asp Ile Leu Asn Gly Tyr		
65	70	75
Asn Gly Thr Val Phe Ala Tyr Gly Gln Thr Gly Ala Gly Lys Ser Tyr		
85	90	95
Thr Met Met Gly Thr Ser Ile Asp Asp Pro Asp Gly Arg Gly Val Ile		
100	105	110
Pro Arg Ile Val Glu Gln Ile Phe Thr Ser Ile Leu Ser Ser Ala Ala		
115	120	125
Asn Ile Glu Tyr Thr Val Arg Val Ser Tyr Met Glu Ile Tyr Met Glu		
130	135	140

Arg Ile Arg Asp Leu Leu Ala Pro Gln Asn Asp Asn Leu Pro Val His
 145 150 155 160
 Glu Glu Lys Asn Arg Gly Val Tyr Val Lys Gly Leu Leu Glu Ile Tyr
 165 170 175
 Val Ser Ser Val Gln Glu Val Tyr Glu Val Met Arg Arg Gly Gly Asn
 180 185 190
 Ala Arg Ala Val Ala Ala Thr Asn Met Asn Gln Glu Ser Ser Arg Ser
 195 200 205
 His Ser Ile Phe Val Ile Thr Ile Thr Gln Lys Asn Val Glu Thr Gly
 210 215 220
 Ser Ala Lys Ser Gly Gln Leu Phe Leu Val Asp Leu Ala Gly Ser Glu
 225 230 235 240
 Lys Val Gly Lys Thr Gly Ala Ser Gly Gln Thr Leu Glu Glu Ala Lys
 245 250 255
 Lys Ile Asn Lys Ser Leu Ser Ala Leu Gly Met Val Ile Asn Ala Leu
 260 265 270
 Thr Asp Gly Lys Ser Ser His Val Pro Tyr Arg Asp Ser Lys Leu Thr
 275 280 285
 Arg Ile Leu Gln Glu Ser Leu Gly Gly Asn Ser Arg Thr Thr Leu Ile
 290 295 300
 Ile Asn Cys Ser Pro Ser Ser Tyr Asn Asp Ala Glu Thr Leu Ser Thr
 305 310 315 320
 Leu Arg Phe Gly Met Arg Ala Lys Ser Ile Lys Asn Lys Ala Lys Val
 325 330 335
 Asn Ala Glu Leu Ser Pro Ala Glu Leu Lys Gln Met Leu Ala Lys Ala
 340 345 350
 Lys Thr Gln Ile Thr Ser Phe Glu Asn Tyr Ile Val Asn Leu Glu Ser
 355 360 365
 Glu Val Gln Val Trp Arg Gly Gly Glu Thr Val Pro Lys Glu Lys Trp
 370 375 380
 Val Pro Pro Leu Glu Leu Ala Ile Thr Pro Ser Lys Ser Ala Ser Thr
 385 390 395 400
 Thr Ala Arg Pro Ser Thr Pro Ser Arg Leu Leu Pro Glu Ser Arg Ala
 405 410 415
 Glu Thr Pro Ala Ile Ser Asp Arg Ala Gly Thr Pro Ser Leu Pro Leu
 420 425 430
 Asp Lys Asp Glu Arg Glu Glu Phe Leu Arg Arg Glu Asn Glu Leu Gln
 435 440 445
 Asp Gln Ile Ala Glu Lys Glu Ser Ile Ala Ala Ala Glu Arg Gln
 450 455 460
 Leu Arg Glu Thr Lys Glu Glu Leu Ile Ala Leu Lys Asp His Asp Ser
 465 470 475 480
 Lys Leu Gly Lys Glu Asn Glu Arg Leu Ile Ser Glu Ser Asn Glu Phe
 485 490 495
 Lys Met Gln Leu Glu Arg Leu Ala Phe Glu Asn Lys Glu Ala Gln Ile
 500 505 510
 Thr Ile Asp Gly Leu Lys Asp Ala Asn Ser Glu Leu Thr Ala Glu Leu
 515 520 525
 Asp Glu Val Lys Gln Gln Met Leu Asp Met Lys Met Ser Ala Lys Glu
 530 535 540
 Thr Ser Ala Val Leu Asp Glu Lys Glu Lys Lys Ala Glu Lys Met
 545 550 555 560
 Ala Lys Met Met Ala Gly Phe Asp Leu Ser Gly Asp Val Phe Ser Asp
 565 570 575
 Asn Glu Arg Ala Val Ala Asp Ala Ile Ala Gln Leu Asp Ala Leu Phe
 580 585 590
 Glu Ile Ser Ser Ala Gly Asp Ala Ile Pro Pro Glu Asp Ile Lys Ala
 595 600 605
 Leu Arg Glu Lys Leu Val Glu Thr Gln Gly Phe Val Arg Gln Ala Glu
 610 615 620
 Leu Ser Ser Phe Ser Ala Ala Ser Ser Asp Ala Glu Ala Arg Lys Arg
 625 630 635 640

Ala Glu Leu Glu Ala Arg Leu Glu Ala Leu Gln Gln Glu His Glu Glu
 645 650 655
 Leu Leu Ser Arg Asn Leu Thr Glu Ala Asp Lys Glu Glu Val Lys Ala
 660 665 670
 Leu Leu Ala Lys Ser Leu Ser Asp Lys Ser Ala Val Gln Val Glu Leu
 675 680 685
 Val Glu Gln Leu Lys Ala Asp Ile Ala Leu Lys Asn Ser Glu Thr Glu
 690 695 700
 His Leu Lys Ala Leu Val Asp Asp Leu Gln Arg Arg Val Lys Ala Gly
 705 710 715 720
 Gly Ala Gly Val Ala Met Ala Asn Gly Lys Thr Val Gln Gln Gln Leu
 725 730 735
 Ala Glu Phe Asp Val Met Lys Lys Ser Leu Met Arg Asp Leu Gln Asn
 740 745 750
 Arg Cys Glu Arg Val Val Glu Leu Glu Ile Ser Leu Asp Glu Thr Arg
 755 760 765
 Glu Gln Tyr Asn Asn Val Leu Arg Ser Ser Asn Asn Arg Ala Gln Gln
 770 775 780
 Lys Lys Met Ala Phe Leu Glu Arg Asn Leu Glu Gln Leu Thr Gln Val
 785 790 795 800
 Gln Arg Gln Leu Val Glu Gln Asn Ser Ala Leu Lys Lys Glu Val Ala
 805 810 815
 Ile Ala Glu Arg Lys Leu Met Ala Arg Asn Glu Arg Ile Gln Ser Leu
 820 825 830
 Glu Ser Leu Leu Gln Glu Ser Gln Glu Lys Met Ala Gln Ala Asn His
 835 840 845
 Lys Phe Glu Val Gln Leu Ala Ala Val Lys Asp Arg Leu Glu Ala Ala
 850 855 860
 Lys Ala Gly Ser Thr Arg Gly Leu Gly Thr Asp Ala Gly Leu Gly Gly
 865 870 875 880
 Phe Ser Ile Gly Ser Arg Ile Ala Lys Pro Leu Arg Gly Gly Asp
 885 890 895
 Ala Val Ala Gly Ala Thr Ala Thr Asn Pro Thr Ile Ala Thr Leu Gln
 900 905 910
 Gln Asn Pro Pro Glu Asn Lys Arg Ser Ser Trp Phe Phe Gln Lys Ser
 915 920 925

<210> 24
 <211> 1031
 <212> PRT
 <213> Strongylocentrotus purpuratus

<400> 24

Met	Ala	Asp	Pro	Ala	Glu	Cys	Asn	Ile	Lys	Val	Val	Cys	Arg	Val	Arg
1															
														10	15
Pro	Met	Asn	Ala	Thr	Glu	Gln	Asn	Thr	Ser	His	Ile	Cys	Thr	Lys	Phe
														20	30
Ile	Ser	Glu	Glu	Gln	Val	Gln	Ile	Gly	Gly	Lys	Leu	Asn	Met	Phe	Asp
														35	45
Arg	Ile	Phe	Lys	Pro	Asn	Thr	Thr	Gln	Glu	Glu	Val	Tyr	Asn	Lys	Ala
														50	60
Ala	Arg	Gln	Ile	Val	Lys	Asp	Val	Leu	Asp	Gly	Tyr	Asn	Gly	Thr	Ile
														65	80
Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	Phe	Thr	Met	Glu	Gly
														85	95
Val	Met	Gly	Asn	Pro	Gln	Tyr	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val	Gln
														100	110
Asp	Ile	Phe	Asn	His	Ile	Tyr	Gln	Met	Asp	Glu	Ser	Leu	Glu	Phe	His
														115	125
Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Met	Asp	Arg	Ile	Arg	Asp	Leu
														130	140
Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn	Arg

145	150	155	160
Val Pro Phe Val Lys Gly Ala Thr Glu Arg Phe Ala Ser Ser Pro Glu			
165	170	175	
Glu Val Met Asp Val Ile Glu Glu Gly Lys Ser Asn Arg His Ile Ala			
180	185	190	
Val Thr Asn Met Asn Glu His Ser Ser Arg Ser His Ser Ile Phe Leu			
195	200	205	
Ile Gln Val Lys Gln Glu Asn Met Glu Thr Lys Lys Lys Leu Ser Gly			
210	215	220	
Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys Val Ser Lys Thr			
225	230	235	240
Gly Ala Glu Gly Thr Val Leu Asp Glu Ala Lys Asn Ile Asn Lys Ser			
245	250	255	
Leu Ser Ala Leu Gly Asn Val Ile Ser Ala Leu Ala Asp Gly Lys Lys			
260	265	270	
Ser His Ile Pro Tyr Arg Asp Ser Lys Met Thr Arg Ile Leu Gln Glu			
275	280	285	
Ser Leu Gly Gly Asn Ala Arg Thr Thr Ile Val Ile Cys Cys Ser Pro			
290	295	300	
Ser Ser Phe Asn Glu Ser Glu Ser Lys Ser Thr Leu Met Phe Gly Gln			
305	310	315	320
Arg Ala Lys Thr Ile Lys Asn Thr Val Thr Val Asn Met Glu Leu Thr			
325	330	335	
Ala Glu Glu Trp Arg Asn Arg Tyr Glu Lys Glu Lys Glu Lys Asn Gly			
340	345	350	
Arg Leu Lys Ala Gln Leu Leu Ile Leu Glu Asn Glu Leu Gln Arg Trp			
355	360	365	
Arg Ala Gly Glu Ser Val Pro Val Lys Glu Gln Gly Asn Lys Asn Asp			
370	375	380	
Glu Ile Leu Lys Glu Met Met Lys Pro Lys Gln Met Thr Val His Val			
385	390	395	400
Ser Glu Glu Glu Lys Asn Lys Trp Glu Glu Glu Lys Val Lys Leu Tyr			
405	410	415	
Glu Gln Leu Asp Glu Lys Asp Ser Glu Ile Asp Asn Gln Ser Arg Leu			
420	425	430	
Thr Glu Lys Leu Lys Gln Gln Met Leu Glu Gln Glu Glu Leu Leu Ser			
435	440	445	
Ser Met Gln Arg Asp Tyr Glu Leu Leu Gln Ser Gln Met Gly Arg Leu			
450	455	460	
Glu Ala Glu Asn Ala Ala Lys Glu Glu Ala Lys Glu Val Leu Gln			
465	470	475	480
Ala Leu Glu Glu Met Ala Val Asn Tyr Asp Glu Lys Ser Lys Glu Val			
485	490	495	
Glu Asp Lys Asn Arg Met Asn Glu Thr Leu Ser Glu Glu Val Asn Glu			
500	505	510	
Lys Met Thr Ala Leu His Thr Thr Ser Thr Glu Leu Gln Lys Leu Gln			
515	520	525	
Glu Leu Glu Gln His Gln Arg Arg Arg Ile Thr Glu Met Met Ala Ser			
530	535	540	
Leu Leu Lys Asp Leu Gly Glu Ile Gly Thr Ala Leu Gly Gly Asn Ala			
545	550	555	560
Ala Asp Met Lys Pro Asn Val Glu Asn Ile Glu Lys Val Asp Glu Glu			
565	570	575	
Phe Thr Met Ala Arg Leu Phe Val Ser Lys Met Lys Thr Glu Val Lys			
580	585	590	
Thr Met Ser Gln Arg Cys Lys Ile Leu Glu Ala Ser Asn Ala Glu Asn			
595	600	605	
Glu Thr Lys Ile Arg Thr Ser Glu Asp Glu Leu Asp Ser Cys Arg Met			
610	615	620	
Thr Ile Gln Gln His Glu Ala Lys Met Lys Ser Leu Ser Glu Asn Ile			
625	630	635	640
Arg Glu Thr Glu Gly Lys Lys Arg His Leu Glu Asp Ser Leu Asp Met			

	645	650	655
Leu Asn Glu Glu Ile Val Lys Leu Arg Ala Ala Glu Glu Ile Arg Leu	660	665	670
Thr Asp Gln Glu Asp Lys Lys Arg Glu Glu Glu Asp Lys Met Gln Ser	675	680	685
Ala Thr Glu Met Gln Ala Ser Met Ser Glu Gln Met Glu Ser His Arg	690	695	700
Asp Ala His Gln Lys Gln Leu Ala Asn Leu Arg Thr Glu Ile Asn Glu	705	710	715
Lys Glu His Gln Met Glu Glu Leu Lys Asp Val Asn Gln Arg Met Thr	725	730	735
Leu Gln His Glu Lys Leu Gln Leu Asp Tyr Glu Lys Leu Lys Ile Glu	740	745	750
Glu Ala Glu Lys Ala Ala Lys Leu Arg Glu Leu Ser Gln Gln Phe Asp	755	760	765
Arg Arg Glu Gln Ala Lys Gln Asp Leu Lys Gly Leu Glu Glu Thr Val	770	775	780
Ala Lys Glu Leu Gln Thr Leu His Asn Leu Arg Lys Leu Phe Val Ser	785	790	795
Asp Leu Gln Asn Arg Val Lys Lys Ala Leu Glu Gly Gly Asp Arg Asp	805	810	815
Asp Asp Ser Gly Ser Gln Ala Gln Lys Gln Lys Ile Ser Phe Leu	820	825	830
Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys Gln Leu Val Arg	835	840	845
Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu Glu Arg Arg Leu	850	855	860
Arg Ala Thr Ser Glu Arg Val Lys Ala Leu Glu Met Ser Leu Lys Glu	865	870	875
Thr Lys Glu Gly Ala Met Arg Asp Arg Lys Arg Tyr Gln Gln Glu Val	885	890	895
Asp Arg Ile Arg Glu Ala Val Arg Gln Arg Asn Phe Ala Lys Arg Gly	900	905	910
Ser Ser Ala Gln Ile Ala Lys Ala Ile Arg Ala Gly His Pro Pro Pro	915	920	925
Ser Pro Gly Gly Ser Thr Gly Ile Arg Gly Gly Tyr Ser Gly Ile	930	935	940
Arg Gly Gly Gly Ser Pro Val Ile Arg Pro Pro Ser His Gly Ser Pro	945	950	955
Glu Pro Ile Ser His Asn Asn Ser Phe Glu Lys Ser Leu Asn Pro Asn	965	970	975
Asp Ala Glu Asn Met Glu Lys Lys Ala Asn Lys Arg Leu Pro Lys Leu	980	985	990
Pro Pro Gly Gly Asn Lys Leu Thr Glu Ser Asp Ile Ala Ala Met Lys	995	1000	1005
Ala Arg Ser Lys Ala Arg Asn Asn Thr Pro Gly Lys Ala Pro Leu Thr	1010	1015	1020
Thr Ser Gly Glu Gln Gly Ser	1025	1030	

<210> 25

<211> 935

<212> PRT

<213> Syncaphalastrum racemosum

<400> 25

Met Ser Gly Asn Asn Ile Lys Val Val Cys Arg Phe Arg Pro Gln Asn	1	5	10	15
---	---	---	----	----

Ser Leu Glu Ile Arg Glu Gly Gly Thr Pro Ile Ile Asp Ile Asp Pro	20	25	30
---	----	----	----

Glu Gly Thr Gln Leu Glu Leu Lys Gly Lys Glu Phe Lys Gly Asn Phe	35	40	45
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Asn Phe Asp Lys Val Phe Gly Met Asn Thr Ala Gln Lys Asp Val Phe
 50 55 60
 Asp Tyr Ser Ile Lys Thr Ile Val Asp Asp Val Thr Ala Gly Tyr Asn
 65 70 75 80
 Gly Thr Val Phe Ala Tyr Gly Gln Thr Gly Ser Gly Lys Thr Phe Thr
 85 90 95
 Met Met Gly Ala Asp Ile Asp Asp Glu Lys Thr Lys Gly Ile Ile Pro
 100 105 110
 Arg Ile Val Glu Gln Ile Phe Asp Ser Ile Met Ala Ser Pro Ser Asn
 115 120 125
 Leu Glu Phe Thr Val Lys Val Ser Tyr Met Glu Ile Tyr Met Glu Lys
 130 135 140
 Val Arg Asp Leu Leu Asn Pro Ser Ser Glu Asn Leu Pro Ile His Glu
 145 150 155 160
 Asp Lys Thr Lys Gly Val Tyr Val Lys Gly Leu Leu Glu Val Tyr Val
 165 170 175
 Gly Ser Thr Asp Glu Val Tyr Glu Val Met Arg Arg Gly Ser Asn Asn
 180 185 190
 Arg Val Val Ala Tyr Thr Asn Met Asn Ala Glu Ser Ser Arg Ser His
 195 200 205
 Ser Ile Val Met Phe Thr Ile Thr Gln Lys Asn Val Asp Thr Gly Ala
 210 215 220
 Ala Lys Ser Gly Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys
 225 230 235 240
 Val Gly Lys Thr Gly Ala Ser Gly Gln Thr Leu Glu Glu Ala Lys Lys
 245 250 255
 Ile Asn Lys Ser Leu Thr Ala Leu Gly Met Val Ile Asn Ala Leu Thr
 260 265 270
 Asp Gly Lys Ser Ser His Val Pro Tyr Arg Asp Ser Lys Leu Thr Arg
 275 280 285
 Ile Leu Gln Glu Ser Leu Gly Gly Asn Ser Arg Thr Thr Leu Ile Ile
 290 295 300
 Asn Cys Ser Pro Ser Ser Tyr Asn Glu Ala Glu Thr Leu Ser Thr Leu
 305 310 315 320
 Arg Phe Gly Ala Arg Ala Lys Ser Ile Lys Asn Lys Ala Lys Val Asn
 325 330 335
 Ala Asp Leu Ser Pro Ala Glu Leu Lys Ala Leu Leu Lys Lys Val Lys
 340 345 350
 Ser Glu Ala Val Thr Tyr Gln Thr Tyr Ile Ala Ala Leu Glu Gly Glu
 355 360 365
 Val Asn Val Trp Arg Thr Gly Gly Thr Val Pro Glu Gly Lys Trp Val
 370 375 380
 Thr Met Asp Lys Val Ser Lys Gly Asp Phe Ala Gly Leu Pro Pro Ala
 385 390 395 400
 Pro Gly Phe Lys Ser Pro Val Ser Asp Glu Gly Ser Arg Pro Ala Thr
 405 410 415
 Pro Val Pro Thr Leu Glu Lys Asp Glu Arg Glu Glu Phe Ile Lys Arg
 420 425 430
 Glu Asn Glu Leu Met Asp Gln Ile Ser Glu Lys Glu Thr Glu Leu Thr
 435 440 445
 Asn Arg Glu Lys Leu Leu Glu Ser Leu Arg Glu Glu Met Gly Tyr Tyr
 450 455 460
 Lys Glu Gln Glu Gln Ser Val Thr Lys Glu Asn Gln Gln Met Thr Ser
 465 470 475 480
 Glu Leu Ser Glu Leu Arg Leu Gln Leu Gln Lys Val Ser Tyr Glu Ser
 485 490 495
 Lys Glu Asn Ala Ile Thr Val Asp Ser Leu Lys Glu Ala Asn Gln Asp
 500 505 510
 Leu Met Ala Glu Leu Glu Glu Leu Lys Lys Asn Leu Ser Glu Met Arg
 515 520 525
 Gln Ala His Lys Asp Ala Thr Asp Ser Asp Lys Glu Lys Arg Lys Ala
 530 535 540

Glu Lys Met Ala Gln Met Met Ser Gly Phe Asp Pro Ser Gly Ile Leu
 545 550 555 560
 Asn Asp Lys Glu Arg Gln Ile Arg Asn Ala Leu Ser Lys Leu Asp Gly
 565 570 575
 Glu Gln Gln Gln Thr Leu Thr Val Glu Asp Leu Val Ser Leu Arg Arg
 580 585 590
 Glu Leu Ala Glu Ser Lys Met Leu Val Glu Gln His Thr Lys Thr Ile
 595 600 605
 Ser Asp Leu Ser Ala Asp Lys Asp Ala Met Glu Ala Lys Lys Ile Glu
 610 615 620
 Leu Glu Gly Arg Leu Gly Ala Leu Glu Lys Glu Tyr Glu Glu Leu Leu
 625 630 635 640
 Asp Lys Thr Ile Ala Glu Glu Ala Asn Met Gln Asn Ala Asp Val
 645 650 655
 Asp Asn Leu Ser Ala Leu Lys Thr Lys Leu Glu Ala Gln Tyr Ala Glu
 660 665 670
 Lys Lys Glu Val Gln Gln Lys Glu Ile Asp Asp Leu Lys Arg Glu Leu
 675 680 685
 Asp Arg Lys Gln Ser Gly His Glu Lys Leu Ser Ala Ala Met Thr Asp
 690 695 700
 Leu Arg Ala Ala Asn Asp Gln Leu Gln Ala Ala Leu Ser Glu Gln Pro
 705 710 715 720
 Phe Gln Ala Pro Gln Asp Asn Ser Asp Met Thr Glu Lys Glu Lys Asp
 725 730 735
 Ile Glu Arg Thr Arg Lys Ser Met Ala Gln Gln Leu Ala Asp Phe Glu
 740 745 750
 Val Met Lys Lys Ala Leu Met Arg Asp Leu Gln Asn Arg Cys Glu Lys
 755 760 765
 Val Val Glu Leu Glu Met Ser Leu Asp Glu Thr Arg Glu Gln Tyr Asn
 770 775 780
 Asn Val Leu Arg Ala Ser Asn Asn Lys Ala Gln Gln Lys Lys Met Ala
 785 790 795 800
 Phe Leu Glu Arg Asn Leu Glu Gln Leu Thr Asn Val Gln Lys Gln Leu
 805 810 815
 Val Glu Gln Asn Ala Ser Leu Lys Lys Glu Val Ala Leu Ala Glu Arg
 820 825 830
 Lys Leu Ile Ala Arg Asn Glu Arg Ile Gln Ser Leu Glu Thr Leu Leu
 835 840 845
 His Asn Ala Gln Asp Lys Leu Leu Asn Gln Asn Lys Lys Phe Glu Gln
 850 855 860
 Gln Leu Ala Thr Val Arg Glu Arg Leu Glu Gln Ala Arg Ser Gln Lys
 865 870 875 880
 Ser Gln Asn Ser Leu Ala Ala Leu Asn Phe Ser Arg Ile Ala Lys Pro
 885 890 895
 Leu Arg Gly Asn Gly Ala Ala Ile Asp Asn Gly Ser Asp Asp Gly Ser
 900 905 910
 Leu Pro Thr Ser Pro Thr Asp Lys Arg Asp Lys Arg Ser Ser Trp Met
 915 920 925
 Pro Gly Phe Met Asn Ser Arg
 930 935

<210> 26
 <211> 1032
 <212> PRT
 <213> Homo sapiens

<400> 26

Met Ala Glu Thr Asn Asn Glu Cys Ser Ile Lys Val Leu Cys Arg Phe
 1 5 10 15
 Arg Pro Leu Asn Gln Ala Glu Ile Leu Arg Gly Asp Lys Phe Ile Pro
 20 25 30
 Ile Phe Gln Gly Asp Asp Ser Val Val Ile Gly Gly Lys Pro Tyr Val

35	40	45													
Phe	Asp	Arg	Val	Phe	Pro	Pro	Asn	Thr	Thr	Gln	Glu	Gln	Val	Tyr	His
50				55						60					
Ala	Cys	Ala	Met	Gln	Ile	Val	Lys	Asp	Val	Leu	Ala	Gly	Tyr	Asn	Gly
65				70						75				80	
Thr	Ile	Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met
				85				90					95		
Glu	Gly	Lys	Leu	His	Asp	Pro	Gln	Leu	Met	Gly	Ile	Ile	Pro	Arg	Ile
				100				105				110			
Ala	Arg	Asp	Ile	Phe	Asn	His	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu
				115				120				125			
Phe	His	Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg
				130			135			140					
Asp	Leu	Leu	Asp	Val	Thr	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys
145				150					155				160		
Asn	Arg	Val	Pro	Phe	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Ser	Ser
				165				170				175			
Pro	Glu	Glu	Ile	Leu	Asp	Val	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His
				180				185				190			
Val	Ala	Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile
				195				200			205				
Phe	Leu	Ile	Asn	Ile	Lys	Gln	Glu	Asn	Met	Glu	Thr	Glu	Gln	Lys	Leu
				210			215			220					
Ser	Gly	Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser
225				230					235				240		
Lys	Thr	Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn
				245				250				255			
Lys	Ser	Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly
				260				265				270			
Thr	Lys	Ser	Tyr	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu
				275			280				285				
Gln	Asp	Ser	Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Met	Phe	Ile	Cys	Cys
				290			295			300					
Ser	Pro	Ser	Ser	Tyr	Asn	Asp	Ala	Glu	Thr	Lys	Ser	Thr	Leu	Met	Phe
305				310					315				320		
Gly	Gln	Arg	Ala	Lys	Thr	Ile	Lys	Asn	Thr	Ala	Ser	Val	Asn	Leu	Glu
				325					330				335		
Leu	Thr	Ala	Glu	Gln	Trp	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys	
				340			345			350					
Thr	Lys	Ala	Gln	Lys	Glu	Thr	Ile	Ala	Lys	Leu	Glu	Ala	Glu	Leu	Ser
				355			360			365					
Arg	Trp	Arg	Asn	Gly	Glu	Asn	Val	Pro	Glu	Thr	Glu	Arg	Leu	Ala	Gly
				370			375			380					
Glu	Glu	Ala	Ala	Leu	Gly	Ala	Glu	Leu	Cys	Glu	Glu	Thr	Pro	Val	Asn
				385			390			395			400		
Asp	Asn	Ser	Ser	Ile	Val	Val	Arg	Ile	Ala	Pro	Glu	Glu	Arg	Gln	Lys
				405				410				415			
Tyr	Glu	Glu	Glu	Ile	Arg	Arg	Leu	Tyr	Lys	Gln	Leu	Asp	Asp	Lys	Asp
				420				425			430				
Asp	Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Ile	Glu	Lys	Leu	Lys	Gln	Gln
				435				440			445				
Met	Leu	Asp	Gln	Glu	Glu	Leu	Leu	Val	Ser	Thr	Arg	Gly	Asp	Asn	Glu
				450				455			460				
Lys	Val	Gln	Arg	Glu	Leu	Ser	His	Leu	Gln	Ser	Glu	Asn	Asp	Ala	Ala
				465			470			475			480		
Lys	Asp	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	Glu	Leu	Ala	Val
				485				490				495			
Asn	Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Glu	Lys	Ser	Gln	Gln	Asn
				500				505				510			
Gln	Leu	Leu	Val	Asp	Glu	Leu	Ser	Gln	Lys	Val	Ala	Thr	Met	Leu	Ser
				515				520			525				
Leu	Glu	Ser	Glu	Leu	Gln	Arg	Leu	Gln	Glu	Val	Ser	Gly	His	Gln	Arg

530	535	540
Lys Arg Ile Ala Glu Val	Leu Asn Gly Leu Met	Lys Asp Leu Ser Glu
545	550	555
Phe Ser Val Ile Val Gly	Asn Gly Glu Ile	Lys Leu Pro Val Glu Ile
565	570	575
Ser Gly Ala Ile Glu Glu	Glu Phe Thr Val	Ala Arg Leu Tyr Ile Ser
580	585	590
Lys Ile Lys Ser Glu Val	Lys Ser Val Val	Lys Arg Cys Arg Gln Leu
595	600	605
Glu Asn Leu Gln Val Glu	Cys His Arg Lys	Met Glu Val Thr Gly Arg
610	615	620
Glu Leu Ser Ser Cys	Gln Leu Leu Ile	Ser Gln His Glu Ala Lys Ile
625	630	635
Arg Ser Leu Thr Glu	Tyr Met Gln Ser Val	Glu Leu Lys Lys Arg His
645	650	655
Leu Glu Glu Ser Tyr Asp	Ser Leu Asp Glu	Leu Ala Lys Leu Gln
660	665	670
Ala Gln Glu Thr Val His	Glu Val Ala Leu Lys Asp	Lys Glu Pro Asp
675	680	685
Thr Gln Asp Ala Asp	Glu Val Lys Lys	Ala Leu Gln Met Glu
690	695	700
Ser His Arg Glu Ala His	His Arg Gln Leu	Ala Arg Leu Arg Asp Glu
705	710	715
Ile Asn Glu Lys Gln Lys	Thr Ile Asp Glu	Leu Lys Asp Leu Asn Gln
725	730	735
Lys Leu Gln Leu Glu Leu	Glu Lys Leu Gln	Ala Asp Tyr Glu Lys Leu
740	745	750
Lys Ser Glu Glu His Glu	Lys Ser Thr Lys	Leu Gln Glu Leu Thr Phe
755	760	765
Leu Tyr Glu Arg His Glu	Gln Ser Lys Gln Asp	Leu Lys Gly Leu Glu
770	775	780
Glu Thr Val Ala Arg Glu	Leu Gln Thr Leu His	Asn Leu Arg Lys Leu
785	790	795
Phe Val Gln Asp Val	Thr Thr Arg Val	Lys Lys Ser Ala Glu Met Glu
805	810	815
Pro Glu Asp Ser Gly	Gly Ile His Ser Gln	Lys Gln Lys Ile Ser Phe
820	825	830
Leu Glu Asn Asn Leu Glu	Gln Leu Thr Lys Val	His Lys Gln Leu Val
835	840	845
Arg Asp Asn Ala Asp	Leu Arg Cys Glu	Leu Pro Lys Leu Glu Lys Arg
850	855	860
Leu Arg Ala Thr Ala Glu	Arg Val Lys Ala	Leu Glu Gly Ala Leu Lys
865	870	875
Glu Ala Lys Glu Gly	Ala Met Lys Asp	Lys Arg Arg Tyr Gln Gln Glu
885	890	895
Val Asp Arg Ile Lys Glu	Ala Val Arg Tyr	Lys Ser Ser Gly Lys Arg
900	905	910
Ala His Ser Ala Gln	Ile Ala Lys Pro Val	Arg Pro Gly His Tyr Pro
915	920	925
Ala Ser Ser Pro Thr Asn	Pro Tyr Gly Thr Arg	Ser Pro Glu Cys Ile
930	935	940
Ser Tyr Thr Asn Ser	Leu Phe Gln Asn	Tyr Gln Asn Leu Tyr Leu Gln
945	950	955
Ala Thr Pro Ser Ser	Thr Ser Asp Met	Tyr Phe Ala Asn Ser Cys Thr
965	970	975
Ser Ser Gly Ala Thr	Ser Ser Gly Gly	Pro Leu Ala Ser Tyr Gln Lys
980	985	990
Ala Asn Met Asp Asn	Gly Asn Ala Thr Asp	Ile Asn Asp Asn Arg Ser
995	1000	1005
Asp Leu Pro Cys Gly	Tyr Glu Ala Glu Asp	Gln Ala Lys Leu Phe Pro
1010	1015	1020
Leu His Gln Glu Thr	Ala Ala Ser	

1025

1030

<210> 27
<211> 1027
<212> PRT
<213> Mus musculus

<400> 27
Met Ala Glu Thr Asn Asn Glu Cys Ser Ile Lys Val Leu Cys Arg Phe
1 5 10 15
Arg Pro Leu Asn Gln Ala Glu Ile Leu Arg Gly Asp Lys Phe Ile Pro
20 25 30
Ile Phe Gln Gly Asp Asp Ser Val Ile Ile Gly Gly Lys Pro Tyr Val
35 40 45
Phe Asp Arg Val Phe Pro Pro Asn Thr Thr Gln Glu Gln Val Tyr His
50 55 60
Ala Cys Ala Met Gln Ile Val Lys Asp Val Leu Ala Gly Tyr Asn Gly
65 70 75 80
Thr Ile Phe Ala Tyr Gly Gln Thr Ser Ser Gly Lys Thr His Thr Met
85 90 95
Glu Gly Lys Leu His Asp Pro Gln Leu Met Gly Ile Ile Pro Arg Ile
100 105 110
Ala Arg Asp Ile Phe Asn His Ile Tyr Ser Met Asp Glu Asn Leu Glu
115 120 125
Phe His Ile Lys Val Ser Tyr Phe Glu Ile Tyr Leu Asp Lys Ile Arg
130 135 140
Asp Leu Leu Asp Val Thr Lys Thr Asn Leu Ser Val His Glu Asp Lys
145 150 155 160
Asn Arg Val Pro Phe Val Lys Gly Cys Thr Glu Arg Phe Val Ser Ser
165 170 175
Pro Glu Glu Ile Leu Asp Val Ile Asp Glu Gly Lys Ser Asn Arg His
180 185 190
Val Ala Val Thr Asn Met Asn Glu His Ser Ser Arg Ser His Ser Ile
195 200 205
Phe Leu Ile Asn Ile Lys Gln Glu Asn Val Glu Thr Glu Gln Lys Leu
210 215 220
Ser Gly Lys Leu Tyr Leu Val Asp Leu Ala Gly Ser Glu Lys Val Ser
225 230 235 240
Lys Thr Gly Ala Glu Gly Ala Val Leu Asp Glu Ala Lys Asn Ile Asn
245 250 255
Lys Ser Leu Ser Ala Leu Gly Asn Val Ile Ser Ala Leu Ala Glu Gly
260 265 270
Thr Lys Ser Tyr Val Pro Tyr Arg Asp Thr Lys Met Thr Arg Ile Leu
275 280 285
Gln Asp Ser Leu Gly Gly Asn Cys Arg Thr Thr Met Phe Ile Cys Cys
290 295 300
Ser Pro Ser Ser Tyr Asn Asp Ala Glu Thr Lys Ser Thr Leu Met Phe
305 310 315 320
Gly Gln Arg Ala Lys Thr Ile Lys Asn Thr Ala Ser Val Asn Leu Glu
325 330 335
Leu Thr Ala Glu Gln Trp Lys Lys Tyr Glu Lys Glu Lys Glu Lys
340 345 350
Thr Lys Ala Gln Lys Glu Thr Ile Ala Asn Val Glu Ala Glu Leu Ser
355 360 365
Arg Trp Arg Asn Gly Glu Asn Val Pro Glu Thr Glu Arg Leu Ala Gly
370 375 380
Glu Asp Ser Ala Leu Gly Ala Glu Leu Cys Glu Glu Thr Pro Val Asn
385 390 395 400
Asp Asn Ser Ser Ile Val Val Arg Ile Ala Pro Glu Glu Arg Gln Lys
405 410 415
Tyr Glu Glu Glu Ile Arg Arg Leu Tyr Lys Gln Leu Asp Asp Lys Asp
420 425 430

Asp Glu Ile Asn Gln Gln Ser Gln Leu Ile Glu Lys Leu Lys Gln Gln
 435 440 445
 Met Leu Asp Gln Glu Glu Leu Leu Val Ser Thr Arg Gly Asp Asn Glu
 450 455 460
 Lys Val Gln Arg Glu Leu Ser His Leu Gln Ser Glu Asn Asp Ala Ala
 465 470 475 480
 Lys Asp Glu Val Lys Glu Val Leu Gln Ala Leu Glu Glu Leu Ala Val
 485 490 495
 Asn Tyr Asp Gln Lys Ser Gln Glu Val Glu Glu Lys Ser Gln Gln Asn
 500 505 510
 Gln Leu Leu Val Asp Glu Leu Ser Gln Lys Val Ala Thr Met Leu Ser
 515 520 525
 Leu Glu Ser Glu Leu Gln Arg Leu Gln Glu Val Ser Gly His Gln Arg
 530 535 540
 Lys Arg Ile Ala Glu Val Leu Asn Gly Leu Met Arg Asp Leu Ser Glu
 545 550 555 560
 Phe Ser Val Ile Val Gly Asn Gly Glu Ile Lys Leu Pro Val Glu Ile
 565 570 575
 Ser Gly Ala Ile Glu Glu Glu Phe Thr Val Ala Arg Leu Tyr Ile Ser
 580 585 590
 Lys Ile Lys Ser Glu Val Lys Ser Val Val Lys Arg Cys Arg Gln Leu
 595 600 605
 Glu Asn Leu Gln Val Glu Cys His Arg Lys Met Glu Val Thr Gly Arg
 610 615 620
 Glu Leu Ser Ser Cys Gln Leu Leu Ile Ser Gln His Glu Ala Lys Ile
 625 630 635 640
 Arg Ser Leu Thr Glu Tyr Met Gln Thr Val Glu Leu Lys Lys Arg His
 645 650 655
 Leu Glu Glu Ser Tyr Asp Ser Leu Ser Asp Glu Leu Ala Arg Leu Gln
 660 665 670
 Ala His Glu Thr Val His Glu Val Ala Leu Lys Asp Lys Glu Pro Asp
 675 680 685
 Thr Gln Asp Ala Glu Glu Val Lys Lys Ala Leu Glu Leu Gln Met Glu
 690 695 700
 Asn His Arg Glu Ala His His Arg Gln Leu Ala Arg Leu Arg Asp Glu
 705 710 715 720
 Ile Asn Glu Lys Gln Lys Thr Ile Asp Glu Leu Lys Asp Leu Asn Gln
 725 730 735
 Lys Leu Gln Leu Glu Leu Glu Lys Leu Gln Ala Asp Tyr Glu Arg Leu
 740 745 750
 Lys Asn Glu Glu Asn Glu Lys Ser Ala Lys Leu Gln Glu Leu Thr Phe
 755 760 765
 Leu Tyr Glu Arg His Glu Gln Ser Lys Gln Asp Leu Lys Gly Leu Glu
 770 775 780
 Glu Thr Val Ala Arg Glu Leu Gln Thr Leu His Asn Leu Arg Lys Leu
 785 790 795 800
 Phe Val Gln Asp Val Thr Thr Arg Val Lys Lys Ser Ala Glu Met Glu
 805 810 815
 Pro Glu Asp Ser Gly Gly Ile His Ser Gln Lys Gln Lys Ile Ser Phe
 820 825 830
 Leu Glu Asn Asn Leu Glu Gln Leu Thr Lys Val His Lys Gln Leu Val
 835 840 845
 Arg Asp Asn Ala Asp Leu Arg Cys Glu Leu Pro Lys Leu Glu Lys Arg
 850 855 860
 Leu Arg Ala Thr Ala Glu Arg Val Lys Ala Leu Glu Gly Ala Leu Lys
 865 870 875 880
 Glu Ala Lys Glu Gly Ala Met Lys Asp Lys Arg Arg Tyr Gln Gln Glu
 885 890 895
 Val Asp Arg Ile Lys Glu Ala Val Arg Tyr Lys Ser Ser Gly Lys Arg
 900 905 910
 Gly His Ser Ala Gln Ile Ala Lys Pro Val Arg Pro Gly His Tyr Pro
 915 920 925

Ala Ser Ser Pro Thr Asn Pro Tyr Gly Thr Arg Ser Pro Glu Cys Ile
 930 935 940
 Ser Tyr Thr Asn Asn Leu Phe Gln Asn Tyr Gln Asn Leu His Leu Gln
 945 950 955 960
 Ala Ala Pro Ser Ser Thr Ser Asp Met Tyr Phe Ala Ser Ser Gly Arg
 965 970 975
 Thr Ser Val Ala Pro Leu Ala Ser Tyr Gln Lys Ala Asn Met Asp Asn
 980 985 990
 Gly Asn Ala Thr Asp Ile Asn Asp Asn Arg Ser Asp Leu Pro Cys Gly
 995 1000 1005
 Tyr Glu Ala Glu Asp Gln Ala Lys Leu Phe Pro Leu His Gln Glu Thr
 1010 1015 1020
 Ala Ala Ser
 1025

<210> 28
 <211> 1111
 <212> PRT
 <213> *Saccharomyces cerevisiae*

<400> 28
 Met Ala Arg Ser Ser Leu Pro Asn Arg Arg Thr Ala Gln Phe Glu Ala
 1 5 10 15
 Asn Lys Arg Arg Thr Ile Ala His Ala Pro Ser Pro Ser Leu Ser Asn
 20 25 30
 Gly Met His Thr Leu Thr Pro Pro Thr Cys Asn Asn Gly Ala Ala Thr
 35 40 45
 Ser Asp Ser Asn Ile His Val Tyr Val Arg Cys Arg Ser Arg Asn Lys
 50 55 60
 Arg Glu Ile Glu Glu Lys Ser Ser Val Val Ile Ser Thr Leu Gly Pro
 65 70 75 80
 Gln Gly Lys Glu Ile Ile Leu Ser Asn Gly Ser His Gln Ser Tyr Ser
 85 90 95
 Ser Ser Lys Lys Thr Tyr Gln Phe Asp Gln Val Phe Gly Ala Glu Ser
 100 105 110
 Asp Gln Glu Thr Val Phe Asn Ala Thr Ala Lys Asn Tyr Ile Lys Glu
 115 120 125
 Met Leu His Gly Tyr Asn Cys Thr Ile Phe Ala Tyr Gly Gln Thr Gly
 130 135 140
 Thr Gly Lys Thr Tyr Thr Met Ser Gly Asp Ile Asn Ile Leu Gly Asp
 145 150 155 160
 Val Gln Ser Thr Asp Asn Leu Leu Leu Gly Glu His Ala Gly Ile Ile
 165 170 175
 Pro Arg Val Leu Val Asp Leu Phe Lys Glu Leu Ser Ser Leu Asn Lys
 180 185 190
 Glu Tyr Ser Val Lys Ile Ser Phe Leu Glu Leu Tyr Asn Glu Asn Leu
 195 200 205
 Lys Asp Leu Leu Ser Asp Ser Glu Asp Asp Asp Pro Ala Val Asn Asp
 210 215 220
 Pro Lys Arg Gln Ile Arg Ile Phe Asp Asn Asn Asn Asn Ser Ser
 225 230 235 240
 Ile Met Val Lys Gly Met Gln Glu Ile Phe Ile Asn Ser Ala His Glu
 245 250 255
 Gly Leu Asn Leu Leu Met Gln Gly Ser Leu Lys Arg Lys Val Ala Ala
 260 265 270
 Thr Lys Cys Asn Asp Leu Ser Ser Arg Ser His Thr Val Phe Thr Ile
 275 280 285
 Thr Thr Asn Ile Val Glu Gln Asp Ser Lys Asp His Gly Gln Asn Lys
 290 295 300
 Asn Phe Val Lys Ile Gly Lys Leu Asn Leu Val Asp Leu Ala Gly Ser
 305 310 315 320
 Glu Asn Ile Asn Arg Ser Gly Ala Glu Asn Lys Arg Ala Gln Glu Ala

325	330	335
Gly Leu Ile Asn Lys Ser	Leu Leu Thr	Leu Gly Arg Val
340	345	Ile Asn Ala
Leu Val Asp His Ser Asn His	Ile Pro Tyr Arg Glu	Ser Lys Leu Thr
355	360	365
Arg Leu Leu Gln Asp Ser	Leu Gly Gly Met	Thr Lys Thr Cys Ile Ile
370	375	380
Ala Thr Ile Ser Pro Ala	Lys Ile Ser Met	Glu Glu Thr Ala Ser Thr
385	390	395 400
Leu Glu Tyr Ala Thr Arg Ala	Lys Ser Ile Lys	Asn Thr Pro Gln Val
405	410	415
Asn Gln Ser Leu Ser Lys Asp	Thr Cys Leu Lys Asp Tyr	Ile Gln Glu
420	425	430
Ile Glu Lys Leu Arg Asn Asp	Leu Lys Asn Ser Arg Asn	Lys Gln Gly
435	440	445
Ile Phe Ile Thr Gln Asp	Gln Leu Asp Leu Tyr	Glu Ser Asn Ser Ile
450	455	460
Leu Ile Asp Glu Gln Asn	Leu Lys Ile His Asn	Leu Arg Glu Gln Ile
465	470	475 480
Lys Lys Phe Lys Glu Asn	Tyr Leu Asn Gln	Leu Asp Ile Asn Asn Leu
485	490	495
Leu Gln Ser Glu Lys Glu	Lys Leu Ile Ala	Ile Ile Gln Asn Phe Asn
500	505	510
Val Asp Phe Ser Asn Phe	Tyr Ser Glu Ile Gln Lys	Ile His His Thr
515	520	525
Asn Leu Glu Leu Met Asn	Glu Val Ile Gln Gln	Arg Asp Phe Ser Leu
530	535	540
Glu Asn Ser Gln Lys Gln	Tyr Asn Thr Asn	Gln Asn Met Gln Leu Lys
545	550	555 560
Ile Ser Gln Gln Val	Leu Gln Thr Leu Asn	Thr Leu Gln Gly Ser Leu
565	570	575
Asn Asn Tyr Asn Ser Lys	Cys Ser Glu Val Ile Lys	Gly Val Thr Glu
580	585	590
Glu Leu Thr Arg Asn Val	Asn Thr His Lys Ala	Lys His Asp Ser Thr
595	600	605
Leu Lys Ser Leu Leu Asn	Ile Thr Thr Asn	Leu Leu Met Asn Gln Met
610	615	620
Asn Glu Leu Val Arg	Ser Ile Ser Thr Ser	Leu Glu Ile Phe Gln Ser
625	630	635 640
Asp Ser Thr Ser His	Tyr Arg Lys Asp	Leu Asn Glu Ile Tyr Gln Ser
645	650	655
His Gln Gln Phe Leu Lys	Asn Leu Gln Asn Asp	Ile Lys Ser Cys Leu
660	665	670
Asp Ser Ile Gly Ser Ser	Ile Leu Thr Ser	Ile Asn Glu Ile Ser Gln
675	680	685
Asn Cys Thr Thr Asn Leu	Asn Ser Met Asn Val	Leu Ile Glu Asn Gln
690	695	700
Gln Ser Gly Ser Ser Lys	Leu Ile Lys Glu Gln	Asp Leu Glu Ile Lys
705	710	715 720
Lys Leu Lys Asn Asp	Leu Ile Asn Glu Arg	Arg Ile Ser Asn Gln Phe
725	730	735
Asn Gln Gln Leu Ala	Glu Met Lys Arg	Tyr Phe Gln Asp His Val Ser
740	745	750
Arg Thr Arg Ser Glu Phe	His Asp Glu Leu Asn	Lys Cys Ile Asp Asn
755	760	765
Leu Lys Asp Lys Gln Ser	Lys Leu Asp Gln Asp	Ile Trp Gln Lys Thr
770	775	780
Ala Ser Ile Phe Asn Glu	Thr Asp Ile Val	Val Asn Lys Ile His Ser
785	790	795 800
Asp Ser Ile Ala Ser Leu	Ala His Asn Ala	Glu Asn Thr Leu Lys Thr
805	810	815
Val Ser Gln Asn Asn	Glu Ser Phe Thr	Asn Asp Leu Ile Ser Leu Ser

820	825	830	
Arg Gly Met Asn Met Asp Ile Ser Ser Lys Leu Arg Ser	Leu Pro Ile		
835	840	845	
Asn Glu Phe Leu Asn Lys Ile Ser Gln Thr Ile Cys	Glu Thr Cys Gly		
850	855	860	
Asp Asp Asn Thr Ile Ala Ser Asn Pro Val	Leu Thr Ser Ile Lys	Lys	
865	870	875	880
Phe Gln Asn Ile Ile Cys Ser Asp Ile Ala	Leu Thr Asn Glu	Lys Ile	
885	890	895	
Met Ser Leu Ile Asp Glu Ile Gln Ser Gln	Ile Glu Thr Ile Ser Asn		
900	905	910	
Glu Asn Asn Ile Asn Leu Ile Ala Ile Asn Glu Asn	Phe Asn Ser Leu		
915	920	925	
Cys Asn Phe Ile Leu Thr Asp Tyr Asp Glu Asn Ile	Met Gln Ile Ser		
930	935	940	
Lys Thr Gln Asp Glu Val	Leu Ser Glu His Cys	Glu Lys Leu Gln Ser	
945	950	955	960
Leu Lys Ile Leu Gly Met Asp Ile Phe Thr Ala His	Ser Ile Glu Lys		
965	970	975	
Pro Leu His Glu His Thr Arg Pro	Glu Ala Ser Val Ile Lys	Ala Leu	
980	985	990	
Pro Leu Leu Asp Tyr Pro Lys Gln Phe Gln Ile Tyr	Arg Asp Ala Glu		
995	1000	1005	
Asn Lys Ser Lys Asp Asp Thr Ser Asn Ser Arg	Thr Cys Ile Pro Asn		
1010	1015	1020	
Leu Ser Thr Asn Glu Asn Phe Pro Leu Ser Gln Phe	Ser Pro Lys Thr		
1025	1030	1035	1040
Pro Val Pro Val Pro Asp Gln Pro Leu Pro Lys	Val Leu Ile Pro Lys		
1045	1050	1055	
Ser Ile Asn Ser Ala Lys Ser Asn Arg	Ser Lys Thr Leu Pro Asn Thr		
1060	1065	1070	
Glu Gly Thr Gly Arg Glu Ser Gln Asn Asn Leu Lys	Arg Arg Phe Thr		
1075	1080	1085	
Thr Glu Pro Ile Leu Lys Gly Glu Glu Thr Glu Asn	Asn Asp Ile Leu		
1090	1095	1100	
Gln Asn Lys Lys Leu His Gln			
1105	1110		

<210> 29

<211> 706

<212> PRT

<213> *Saccharomyces cerevisiae*

<400> 29

Met Ile Gln Lys Met Ser Pro Ser Leu Arg Arg Pro Ser	Thr Arg Ser		
1	5	10	15
Ser Ser Gly Ser Ser Asn Ile Pro Gln Ser Pro Ser Val	Arg Ser Thr		
20	25	30	
Ser Ser Phe Ser Asn Leu Thr Arg Asn Ser Ile Arg	Ser Thr Ser Asn		
35	40	45	
Ser Gly Ser Gln Ser Ile Ser Ala Ser Ser Thr Arg	Ser Asn Ser Pro		
50	55	60	
Leu Arg Ser Val Ser Ala Lys Ser Asp Pro Phe Leu His	Pro Gly Arg		
65	70	75	80
Ile Arg Ile Arg Arg Ser Asp Ser Ile Asn Asn Asn Ser	Arg Lys Asn		
85	90	95	
Asp Thr Tyr Thr Gly Ser Ile Thr Val Thr Ile Arg Pro	Lys Pro Arg		
100	105	110	
Ser Val Gly Thr Ser Arg Asp His Val Gly Leu Lys Ser	Pro Arg Tyr		
115	120	125	
Ser Gln Pro Arg Ser Asn Ser His His Gly Ser Asn Thr	Phe Val Arg		
130	135	140	

Asp	Pro	Trp	Phe	Ile	Thr	Asn	Asp	Lys	Thr	Ile	Val	His	Glu	Glu	Ile
145					150					155					160
Gly	Glu	Phe	Lys	Phe	Asp	His	Val	Phe	Ala	Ser	His	Cys	Thr	Asn	Leu
					165				170					175	
Glu	Val	Tyr	Glu	Arg	Thr	Ser	Lys	Pro	Met	Ile	Asp	Lys	Leu	Leu	Met
					180			185					190		
Gly	Phe	Asn	Ala	Thr	Ile	Phe	Ala	Tyr	Gly	Met	Thr	Gly	Ser	Gly	Lys
		195				200					205				
Thr	Phe	Thr	Met	Ser	Gly	Asn	Glu	Gln	Glu	Leu	Gly	Leu	Ile	Pro	Leu
			210			215				220					
Ser	Val	Ser	Tyr	Leu	Phe	Thr	Asn	Ile	Met	Glu	Gln	Ser	Met	Asn	Gly
				225		230			235				240		
Asp	Lys	Lys	Phe	Asp	Val	Ile	Ile	Ser	Tyr	Leu	Glu	Ile	Tyr	Asn	Glu
				245			250			255					
Arg	Ile	Tyr	Asp	Leu	Leu	Glu	Ser	Gly	Leu	Glu	Glu	Ser	Gly	Ser	Arg
			260			265					270				
Ile	Ser	Thr	Pro	Ser	Arg	Leu	Tyr	Met	Ser	Lys	Ser	Asn	Ser	Asn	Gly
			275			280				285					
Leu	Gly	Val	Glu	Leu	Lys	Ile	Arg	Asp	Asp	Ser	Gln	Tyr	Gly	Val	Lys
			290			295				300					
Val	Ile	Gly	Leu	Thr	Glu	Arg	Arg	Cys	Glu	Ser	Ser	Glu	Glu	Leu	Leu
			305			310			315				320		
Arg	Trp	Ile	Ala	Val	Gly	Asp	Lys	Ser	Arg	Lys	Ile	Gly	Glu	Thr	Asp
				325			330			335					
Tyr	Asn	Ala	Arg	Ser	Ser	Arg	Ser	His	Ala	Ile	Val	Leu	Ile	Arg	Leu
			340			345				350					
Thr	Ser	Thr	Asn	Val	Lys	Asn	Gly	Thr	Ser	Arg	Ser	Ser	Thr	Leu	Ser
			355			360				365					
Leu	Cys	Asp	Leu	Ala	Gly	Ser	Glu	Arg	Ala	Thr	Gly	Gln	Gln	Glu	Arg
			370			375				380					
Arg	Lys	Glu	Gly	Ser	Phe	Ile	Asn	Lys	Ser	Leu	Leu	Ala	Leu	Gly	Thr
			385			390			395				400		
Val	Ile	Ser	Lys	Leu	Ser	Ala	Asp	Lys	Met	Asn	Ser	Val	Gly	Ser	Asn
			405				410			415					
Ile	Pro	Ser	Pro	Ser	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ser	Gly	Asn	Ala
			420				425				430				
Thr	Asn	Asn	Gly	Thr	Ser	Pro	Ser	Asn	His	Ile	Pro	Tyr	Arg	Asp	Ser
			435			440				445					
Lys	Leu	Thr	Arg	Leu	Leu	Gln	Pro	Ala	Leu	Ser	Gly	Asp	Ser	Ile	Val
			450			455				460					
Thr	Thr	Ile	Cys	Thr	Val	Asp	Thr	Arg	Asn	Asp	Ala	Ala	Ala	Glu	Thr
			465			470			475				480		
Met	Asn	Thr	Leu	Arg	Phe	Ala	Ser	Arg	Ala	Lys	Asn	Val	Ala	Leu	His
				485			490			495					
Val	Ser	Lys	Lys	Ser	Ile	Ile	Ser	Asn	Gly	Asn	Asn	Asp	Gly	Asp	Lys
			500				505				510				
Asp	Arg	Thr	Ile	Glu	Leu	Leu	Arg	Arg	Gln	Leu	Glu	Glu	Gln	Arg	Arg
			515			520				525					
Met	Ile	Ser	Glu	Leu	Lys	Asn	Arg	Ser	Asn	Ile	Gly	Glu	Pro	Leu	Thr
			530			535				540					
Lys	Ser	Ser	Asn	Glu	Ser	Thr	Tyr	Lys	Asp	Ile	Lys	Ala	Thr	Gly	Asn
			545			550			555				560		
Asp	Gly	Asp	Pro	Asn	Leu	Ala	Leu	Met	Arg	Ala	Glu	Asn	Arg	Val	Leu
				565			570				575				
Lys	Tyr	Lys	Leu	Glu	Asn	Cys	Glu	Lys	Leu	Leu	Asp	Lys	Asp	Val	Val
			580			585				590					
Asp	Leu	Gln	Asp	Ser	Glu	Ile	Met	Glu	Ile	Val	Glu	Met	Leu	Pro	Phe
			595				600				605				
Glu	Val	Gly	Thr	Leu	Leu	Glu	Thr	Lys	Phe	Gln	Gly	Leu	Glu	Ser	Gln
			610			615				620					
Ile	Arg	Gln	Tyr	Arg	Lys	Tyr	Thr	Gln	Lys	Leu	Glu	Asp	Lys	Ile	Met
			625			630				635				640	

Ala Leu ·Glu Lys Ser Gly His Thr Ala Met Ser Leu Thr Gly Cys Asp
 645 650 655
 Gly Thr Glu Val Ile Glu Leu Gln Lys Met Leu Glu Arg Lys Asp Lys
 660 665 670
 Met Ile Glu Ala Leu Gln Ser Ala Lys Arg Leu Arg Asp Arg Ala Leu
 675 680 685
 Lys Pro Leu Ile Asn Thr Gln Gln Ser Pro His Pro Val Val Asp Asn
 690 695 700
 Asp Lys
 705

<210> 30
 <211> 540
 <212> PRT
 <213> Caenorhabditis elegans

<400> 30
 Met Ser Asn Met Ser Gln Asp Asp Val Thr Thr Gly Leu Arg Thr Val
 1 5 10 15
 Gln Gln Gly Leu Glu Ala Leu Arg Glu Glu His Ser Thr Ile Ser Asn
 20 25 30
 Thr Leu Glu Thr Ser Val Lys Gly Val Lys Glu Asp Glu Ala Pro Leu
 35 40 45
 Pro Lys Gln Lys Leu Ser Gln Ile Asn Asp Asn Leu Asp Lys Leu Val
 50 55 60
 Cys Gly Val Asp Glu Thr Ser Leu Met Leu Met Val Phe Gln Leu Thr
 65 70 75 80
 Gln Gly Met Asp Ala Gln His Gln Lys Tyr Gln Ala Gln Arg Arg Arg
 85 90 95
 Leu Cys Gln Glu Asn Ala Trp Leu Arg Asp Glu Leu Ser Ser Thr Gln
 100 105 110
 Ile Lys Leu Gln Gln Ser Glu Gln Met Val Ala Gln Leu Glu Glu Glu
 115 120 125
 Asn Lys His Leu Lys Tyr Met Ala Ser Ile Lys Gln Leu Asp Asp Gly
 130 135 140
 Thr Gln Ser Asp Thr Lys Thr Ser Val Asp Val Gly Pro Gln Pro Val
 145 150 155 160
 Thr Asn Glu Thr Leu Gln Glu Leu Gly Phe Gly Pro Glu Asp Glu Glu
 165 170 175
 Asp Met Asn Ala Ser Gln Phe Asn Gln Pro Thr Pro Ala Asn Gln Met
 180 185 190
 Ala Ala Ser Ala Asn Val Gly Tyr Glu Ile Pro Ala Arg Leu Arg Thr
 195 200 205
 Leu His Asn Leu Val Ile Gln Tyr Ala Ser Gln Gly Arg Tyr Glu Val
 210 215 220
 Ala Val Pro Leu Cys Lys Gln Ala Leu Glu Asp Leu Glu Lys Thr Ser
 225 230 235 240
 Gly His Asp His Pro Asp Val Ala Thr Met Leu Asn Ile Leu Ala Leu
 245 250 255
 Val Tyr Arg Asp Gln Asn Lys Tyr Lys Glu Ala Ala Asn Leu Leu Asn
 260 265 270
 Glu Ala Leu Ser Ile Arg Glu Lys Cys Leu Gly Glu Ser His Pro Ala
 275 280 285
 Val Ala Ala Thr Leu Asn Asn Leu Ala Val Leu Phe Gly Lys Arg Gly
 290 295 300
 Lys Phe Lys Asp Ala Glu Pro Leu Cys Lys Arg Ala Leu Glu Ile Arg
 305 310 315 320
 Glu Lys Val Leu Gly Asp Asp His Pro Asp Val Ala Lys Gln Leu Asn
 325 330 335
 Asn Leu Ala Leu Leu Cys Gln Asn Gln Gly Lys Tyr Glu Glu Val Glu
 340 345 350
 Lys Tyr Tyr Lys Arg Ala Leu Glu Ile Tyr Glu Ser Lys Leu Gly Pro

355	360	365
Asp Asp Pro Asn Val Ala Lys Thr Lys Asn Asn Leu Ser Ser Ala Tyr		
370	375	380
Leu Lys Gln Gly Lys Tyr Lys Glu Ala Glu Glu Leu Tyr Lys Gln Ile		
385	390	395
Leu Thr Arg Ala His Glu Arg Glu Phe Gly Gln Ile Ser Gly Glu Asn		
405	410	415
Lys Pro Ile Trp Gln Ile Ala Glu Glu Arg Glu Glu Asn Lys His Lys		
420	425	430
Gly Glu Gly Ala Thr Ala Asn Glu Gln Ala Gly Trp Ala Lys Ala Ala		
435	440	445
Lys Val Asp Ser Pro Thr Val Thr Thr Leu Lys Asn Leu Gly Ala		
450	455	460
Leu Tyr Arg Arg Gln Gly Lys Tyr Glu Ala Ala Glu Thr Leu Glu Asp		
465	470	475
Val Ala Leu Arg Ala Lys Lys Gln His Glu Pro Leu Arg Ser Gly Ala		
485	490	495
Met Gly Gly Ile Asp Glu Met Ser Gln Ser Met Met Ala Ser Thr Ile		
500	505	510
Gly Gly Ser Arg Asn Ser Met Thr Thr Ser Thr Ser Gln Thr Gly Leu		
515	520	525
Lys Asn Lys Leu Met Asn Ala Leu Gly Phe Asn Ser		
530	535	540

<210> 31

<211> 508

<212> PRT

<213> Drosophila melanogaster

<400> 31

Met Thr Gln Met Ser Gln Asp Glu Ile Ile Thr Asn Thr Lys Thr Val		
1	5	10
Leu Gln Gly Leu Glu Ala Leu Arg Val Glu His Val Ser Ile Met Asn		
20	25	30
Gly Ile Ala Glu Val Gln Lys Asp Asn Glu Lys Ser Asp Met Leu Arg		
35	40	45
Lys Asn Ile Glu Asn Ile Glu Leu Gly Leu Ser Glu Ala Gln Val Met		
50	55	60
Met Ala Leu Thr Ser His Leu Gln Asn Ile Glu Ala Glu Lys His Lys		
65	70	75
Leu Lys Thr Gln Val Arg Arg Leu His Gln Glu Asn Ala Trp Leu Arg		
85	90	95
Asp Glu Leu Ala Asn Thr Gln Gln Lys Phe Gln Ala Ser Glu Gln Leu		
100	105	110
Val Ala Gln Leu Glu Glu Glu Lys Lys His Leu Glu Phe Met Ala Ser		
115	120	125
Val Lys Lys Tyr Asp Glu Asn Gln Glu Gln Asp Asp Ala Cys Asp Lys		
130	135	140
Ser Arg Thr Asp Pro Val Val Glu Leu Phe Pro Asp Glu Glu Asn Glu		
145	150	155
Asp Arg His Asn Met Ser Pro Thr Pro Pro Ser Gln Phe Ala Asn Gln		
165	170	175
Thr Ser Gly Tyr Glu Ile Pro Ala Arg Leu Arg Thr Leu His Asn Leu		
180	185	190
Val Ile Gln Tyr Ala Ser Gln Gly Arg Tyr Glu Val Ala Val Pro Leu		
195	200	205
Cys Lys Gln Ala Leu Glu Asp Leu Glu Arg Thr Ser Gly His Asp His		
210	215	220
Pro Asp Val Ala Thr Met Leu Asn Ile Leu Ala Leu Val Tyr Arg Asp		
225	230	235
Gln Asn Lys Tyr Lys Glu Ala Ala Asn Leu Leu Asn Asp Ala Leu Ser		
245	250	255

Ile Arg Gly Lys Thr Leu Gly Glu Asn His Pro Ala Val Ala Ala Thr
 260 265 270
 Leu Asn Asn Leu Ala Val Leu Tyr Gly Lys Arg Gly Lys Tyr Lys Asp
 275 280 285
 Ala Glu Pro Leu Cys Lys Arg Ala Leu Glu Ile Arg Glu Lys Val Leu
 290 295 300
 Gly Lys Asp His Pro Asp Val Ala Lys Gln Leu Asn Asn Leu Ala Leu
 305 310 315 320
 Leu Cys Gln Asn Gln Gly Lys Tyr Asp Glu Val Glu Lys Tyr Tyr Gln
 325 330 335
 Arg Ala Leu Asp Ile Tyr Glu Ser Lys Leu Gly Pro Asp Asp Pro Asn
 340 345 350
 Val Ala Lys Thr Lys Asn Asn Leu Ala Gly Cys Tyr Leu Lys Gln Gly
 355 360 365
 Arg Tyr Thr Glu Ala Glu Ile Leu Tyr Lys Gln Val Leu Thr Arg Ala
 370 375 380
 His Glu Arg Glu Phe Gly Ala Ile Asp Ser Lys Asn Lys Pro Ile Trp
 385 390 395 400
 Gln Val Ala Glu Glu Arg Glu His Lys Phe Asp Asn Arg Glu Asn
 405 410 415
 Thr Pro Tyr Gly Glu Tyr Gly Gly Trp His Lys Ala Ala Lys Val Asp
 420 425 430
 Ser Pro Thr Val Thr Thr Leu Lys Asn Leu Gly Ala Leu Tyr Arg
 435 440 445
 Arg Gln Gly Met Phe Glu Ala Ala Glu Thr Leu Glu Asp Cys Ala Met
 450 455 460
 Arg Ser Lys Lys Glu Ala Tyr Asp Leu Ala Lys Gln Thr Lys Leu Ser
 465 470 475 480
 Gln Leu Leu Thr Ser Asn Glu Lys Arg Arg Ser Lys Ala Ile Lys Glu
 485 490 495
 Asp Leu Asp Phe Ser Glu Glu Lys Asn Ala Lys Pro
 500 505

<210> 32
 <211> 571
 <212> PRT
 <213> Loligo pealeii

<400> 32

Met	Glu	Val	Thr	Gln	Thr	Val	Lys	Ser	Tyr	Arg	Ile	Lys	Lys	Ile	Glu
1															
															15
Glu	Ile	Gly	Lys	Met	Thr	Ala	Leu	Ser	Gln	Glu	Glu	Ile	Ile	Ser	Asn
															30
Thr	Lys	Thr	Val	Ile	Gln	Gly	Leu	Asp	Thr	Leu	Lys	Asn	Glu	His	Asn
															45
Gln	Ile	Leu	Asn	Ser	Leu	Leu	Thr	Ser	Met	Lys	Thr	Ile	Arg	Lys	Glu
															60
Asn	Gly	Asp	Thr	Asn	Leu	Val	Glu	Glu	Lys	Ala	Asn	Ile	Leu	Lys	Lys
															80
Ser	Val	Asp	Ser	Ile	Glu	Leu	Gly	Leu	Gly	Glu	Ala	Gln	Val	Met	Met
															95
Ala	Leu	Ala	Asn	His	Leu	Gln	His	Thr	Glu	Ala	Glu	Lys	Gln	Lys	Leu
															110
Arg	Ala	Gln	Val	Arg	Arg	Leu	Cys	Gln	Glu	Asn	Ala	Trp	Leu	Arg	Asp
															125
Glu	Leu	Ala	Asn	Thr	Gln	Gln	Lys	Leu	Gln	Met	Ser	Glu	Gln	Lys	Val
															140
Ala	Thr	Ile	Glu	Glu	Glu	Lys	Lys	His	Leu	Glu	Phe	Met	Asn	Glu	Met
															160
Lys	Lys	Tyr	Asp	Thr	Asn	Glu	Ala	Gln	Val	Asn	Glu	Glu	Lys	Glu	Ser
															175
Glu	Gln	Ser	Ser	Leu	Asp	Leu	Gly	Phe	Pro	Asp	Asp	Asp	Asp	Gly	

	180	185	190
Gly Gln Pro Glu Val Leu Ser Pro Thr Gln Pro Ser Ala Met Ala Gln			
195	200	205	
Ala Ala Ser Gly Gly Cys Glu Ile Pro Ala Arg Leu Arg Thr Leu His			
210	215	220	
Asn Leu Val Ile Gln Tyr Ala Ser Gln Gly Arg Tyr Glu Val Ala Val			
225	230	235	240
Pro Leu Cys Lys Gln Ala Leu Glu Asp Leu Glu Lys Thr Ser Gly His			
245	250	255	
Asp His Pro Asp Val Ala Thr Met Leu Asn Ile Leu Ala Leu Val Tyr			
260	265	270	
Arg Asp Gln Gly Lys Tyr Lys Glu Ala Ala Asn Leu Leu Asn Asp Ala			
275	280	285	
Leu Gly Ile Arg Glu Lys Thr Leu Gly Pro Asp His Pro Ala Val Ala			
290	295	300	
Ala Thr Leu Asn Asn Leu Ala Val Leu Tyr Gly Lys Arg Gly Lys Tyr			
305	310	315	320
Lys Asp Ala Glu Pro Leu Cys Lys Arg Ala Leu Val Ile Arg Glu Lys			
325	330	335	
Val Leu Gly Lys Asp His Pro Asp Val Ala Lys Gln Leu Asn Asn Leu			
340	345	350	
Ala Leu Leu Cys Gln Asn Gln Gly Lys Tyr Glu Glu Val Glu Arg Tyr			
355	360	365	
Tyr Gln Arg Ala Leu Glu Ile Tyr Gln Lys Glu Leu Gly Pro Asp Asp			
370	375	380	
Pro Asn Val Ala Lys Thr Lys Asn Asn Leu Ala Ser Ala Tyr Leu Lys			
385	390	395	400
Gln Gly Lys Tyr Lys Gln Ala Glu Ile Leu Tyr Lys Glu Val Leu Thr			
405	410	415	
Arg Ala His Glu Lys Glu Phe Gly Lys Val Asp Asp Asp Asn Lys Pro			
420	425	430	
Ile Trp Met Gln Ala Glu Glu Arg Glu Glu Asn Lys Ala Lys Tyr Lys			
435	440	445	
Asp Gly Ala Pro Gln Pro Asp Tyr Gly Ser Trp Leu Lys Ala Val Lys			
450	455	460	
Val Asp Ser Pro Thr Val Thr Thr Leu Lys Asn Leu Gly Ala Leu			
465	470	475	480
Tyr Arg Arg Gln Gly Lys Tyr Glu Ala Ala Glu Thr Leu Glu Glu Cys			
485	490	495	
Ala Leu Arg Ser Arg Lys Ser Ala Leu Glu Val Val Arg Gln Thr Lys			
500	505	510	
Ile Ser Asp Val Leu Gly Ser Asp Phe Ser Lys Gly Gln Ser Pro Lys			
515	520	525	
Asp Arg Lys Arg Ser Asn Ser Arg Asp Arg Asn Arg Arg Asp Ser Met			
530	535	540	
Asp Ser Val Ser Tyr Glu Lys Ser Gly Asp Gly Asp Glu His Glu Lys			
545	550	555	560
Ser Lys Leu His Val Gly Thr Ser His Lys Gln			
565	570		

<210> 33

<211> 686

<212> PRT

<213> Strongylocentrotus purpuratus

<400> 33

Met Ser Gly Ser Lys Leu Ser Thr Pro Asn Asn Ser Gly Gly Gln			
1	5	10	15
Gly Asn Leu Ser Gln Glu Gln Ile Ile Thr Gly Thr Arg Glu Val Ile			
20	25	30	
Lys Gly Leu Glu Gln Leu Lys Asn Glu His Asn Asp Ile Leu Asn Ser			
35	40	45	

Leu Tyr Gln Ser Leu Lys Met Leu Lys Lys Asp Thr Pro Gly Asp Ser
 50 55 60
 Asn Leu Val Glu Glu Lys Thr Asp Ile Ile Glu Lys Ser Leu Glu Ser
 65 70 75 80
 Leu Glu Leu Gly Leu Gly Glu Ala Lys Val Met Met Ala Leu Gly His
 85 90 95
 His Leu Asn Met Val Glu Ala Glu Lys Gln Lys Leu Arg Ala Gln Val
 100 105 110
 Arg Arg Leu Val Gln Glu Asn Thr Trp Leu Arg Asp Glu Leu Ala Ala
 115 120 125
 Thr Gln Gln Lys Leu Gln Thr Ser Glu Gln Asn Leu Ala Asp Leu Glu
 130 135 140
 Val Lys Tyr Lys His Leu Glu Tyr Met Asn Ser Ile Lys Lys Tyr Asp
 145 150 155 160
 Glu Asp Arg Thr Pro Asp Glu Glu Ala Ser Ser Ser Asp Pro Leu Asp
 165 170 175
 Leu Gly Phe Pro Glu Asp Asp Asp Gly Gly Gln Ala Asp Glu Ser Tyr
 180 185 190
 Pro Gln Pro Gln Thr Gly Ser Gly Ser Val Ser Ala Ala Gly Gly
 195 200 205
 Tyr Glu Ile Pro Ala Arg Leu Arg Thr Leu His Asn Leu Val Ile Gln
 210 215 220
 Tyr Ala Ser Gln Ser Arg Tyr Glu Val Ala Val Pro Leu Cys Lys Gln
 225 230 235 240
 Ala Leu Glu Asp Leu Glu Lys Thr Ser Gly His Asp His Pro Asp Val
 245 250 255
 Ala Thr Met Leu Asn Ile Leu Ala Leu Val Tyr Arg Asp Gln Asn Lys
 260 265 270
 Tyr Lys Glu Ala Gly Asn Leu Leu His Asp Ala Leu Ala Ile Arg Glu
 275 280 285
 Lys Thr Leu Gly Pro Asp His Pro Ala Val Ala Ala Thr Leu Asn Asn
 290 295 300
 Leu Ala Val Leu Tyr Gly Lys Arg Gly Lys Tyr Lys Glu Ala Glu Pro
 305 310 315 320
 Leu Cys Lys Arg Ala Leu Glu Ile Arg Glu Lys Val Leu Gly Lys Asp
 325 330 335
 His Pro Asp Val Ala Lys Gln Leu Asn Asn Leu Ala Leu Leu Cys Gln
 340 345 350
 Asn Gln Gly Lys Tyr Glu Glu Val Glu Trp Tyr Tyr Gln Arg Ala Leu
 355 360 365
 Glu Ile Tyr Glu Lys Lys Leu Gly Pro Asp Asp Pro Asn Val Ala Lys
 370 375 380
 Thr Lys Asn Asn Leu Ala Ala Ala Tyr Leu Lys Gln Gly Lys Tyr Lys
 385 390 395 400
 Ala Ala Glu Thr Leu Tyr Lys Gln Val Leu Thr Arg Ala His Glu Arg
 405 410 415
 Glu Phe Gly Leu Ser Ala Asp Asp Lys Asp Asn Lys Pro Ile Trp Met
 420 425 430
 Gln Ala Glu Glu Arg Glu Glu Lys Gly Lys Phe Lys Asp Asn Ala Pro
 435 440 445
 Tyr Gly Asp Tyr Gly Gly Trp His Lys Ala Ala Lys Val Asp Ser Arg
 450 455 460
 Ser Arg Ser Ser Pro Thr Val Thr Thr Leu Lys Asn Leu Gly Ala
 465 470 475 480
 Leu Tyr Arg Arg Gln Gly Lys Tyr Asp Ala Ala Glu Ile Leu Glu Glu
 485 490 495
 Cys Ala Met Lys Ser Arg Arg Asn Ala Leu Asp Met Val Arg Glu Thr
 500 505 510
 Lys Val Arg Glu Leu Leu Gly Gln Asp Leu Ser Thr Asp Val Pro Arg
 515 520 525
 Ser Glu Ala Met Ala Lys Glu Arg His His Arg Arg Ser Ser Gly Thr
 530 535 540

Pro Arg His Gly Ser Thr Glu Ser Val Ser Tyr Glu Lys Thr Asp Gly
 545 550 555 560
 Ser Glu Glu Val Ser Ile Gly Val Ala Trp Lys Ala Lys Arg Lys Ala
 565 570 575
 Lys Asp Arg Ser Arg Ser Ile Pro Ala Gly Tyr Val Glu Ile Pro Arg
 580 585 590
 Ser Pro Pro His Val Leu Val Glu Asn Gly Asp Gly Lys Leu Arg Arg
 595 600 605
 Ser Gly Ser Leu Ser Lys Leu Arg Ala Ser Val Arg Arg Ser Ser Thr
 610 615 620
 Lys Leu Leu Asn Lys Leu Lys Gly Arg Glu Ser Asp Asp Asp Gly Gly
 625 630 635 640
 Met Lys Arg Ala Ser Ser Met Ser Val Leu Pro Ser Arg Gly Asn Asp
 645 650 655
 Glu Ser Thr Pro Ala Pro Ile Gln Leu Ser Gln Arg Gly Arg Val Gly
 660 665 670
 Ser His Asp Asn Leu Ser Ser Arg Arg Gln Ser Gly Asn Phe
 675 680 685

<210> 34

<211> 452

<212> PRT

<213> Gallus gallus

<400> 34

Met Arg Arg Ala Leu Gly Thr Leu Gly Cys Cys Leu Ala Leu Leu Leu
 1 5 10 15
 Pro Leu Leu Pro Ala Ala Arg Gly Val Pro His Arg His Arg Arg Gln
 20 25 30
 Pro Leu Gly Ser Gly Leu Gly Arg His Gly Ala Ala Asp Thr Ala Cys
 35 40 45
 Lys Asn Arg Pro Leu Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser
 50 55 60
 Val Arg Pro Glu Glu Phe Glu Lys Val Lys Ile Phe Leu Ser Lys Met
 65 70 75 80
 Ile Asp Thr Leu Asp Val Gly Glu Arg Thr Thr Arg Val Ala Val Met
 85 90 95
 Asn Tyr Ala Ser Thr Val Lys Val Glu Phe Pro Leu Arg Thr Tyr Phe
 100 105 110
 Asp Lys Ala Ser Met Lys Glu Ala Val Ser Arg Ile Gln Pro Leu Ser
 115 120 125
 Ala Gly Thr Met Thr Gly Leu Ala Ile Gln Ala Ala Met Asp Glu Val
 130 135 140
 Phe Thr Glu Glu Met Gly Thr Arg Pro Ala Asn Phe Asn Ile Pro Lys
 145 150 155 160
 Val Val Ile Ile Val Thr Asp Gly Arg Pro Gln Asp Gln Val Glu Asn
 165 170 175
 Val Ala Ala Asn Ala Arg Thr Ala Gly Ile Glu Ile Tyr Ala Val Gly
 180 185 190
 Val Gly Arg Ala Asp Met Gln Ser Leu Arg Ile Met Ala Ser Glu Pro
 195 200 205
 Leu Asp Glu His Val Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys
 210 215 220
 Leu Thr Ser Lys Phe Arg Glu Thr Phe Cys Ala Ala Asn Thr Cys Ala
 225 230 235 240
 Leu Gly Thr His Asp Cys Glu Gln Val Cys Val Ser Asn Asp Gly Ser
 245 250 255
 Tyr Leu Cys Asp Cys Tyr Glu Gly Tyr Thr Leu Asn Pro Asp Lys Arg
 260 265 270
 Thr Cys Ser Ala Val Asp Val Cys Ala Pro Gly Arg His Glu Cys Asp
 275 280 285
 Gln Ile Cys Val Ser Asn Asn Gly Ser Tyr Val Cys Glu Cys Phe Glu

290	295	300
Gly Tyr Thr Leu Asn Pro Asp Lys Lys Thr Cys Ser Ala Met Asp Val		
305	310	315 320
Cys Ala Pro Gly Arg His Asp Cys Ala Gln Val Cys Arg Arg Asn Gly		
325	330	335
Gly Ser Tyr Ser Cys Asp Cys Phe Glu Gly Phe Thr Leu Asn Pro Asp		
340	345	350
Lys Lys Thr Cys Ser Ala Val Asp Val Cys Ala Pro Gly Arg His Asp		
355	360	365
Cys Glu Gln Val Cys Val Arg Asp Asp Leu Phe Tyr Thr Cys Asp Cys		
370	375	380
Tyr Gln Gly Tyr Val Leu Asn Pro Asp Lys Lys Thr Cys Ser Arg Ala		
385	390	395 400
Thr Thr Ser Ser Leu Val Thr Asp Glu Glu Ala Cys Lys Cys Glu Ala		
405	410	415
Ile Ala Ala Leu Gln Asp Ser Val Thr Ser Arg Leu Glu Ala Leu Ser		
420	425	430
Thr Lys Leu Asp Glu Val Ser Gln Lys Leu Gln Ala Tyr Gln Asp Arg		
435	440	445
Gln Gln Val Val		
450		

<210> 35

<211> 486

<212> PRT

<213> Homo sapiens

<400> 35

Met Pro Arg Pro Ala Pro Ala Arg Arg Leu Pro Gly Leu Leu Leu Leu		
1	5	10 15
Leu Trp Pro Leu Leu Leu Pro Ser Ala Ala Pro Asp Pro Val Ala		
20	25	30
Arg Pro Gly Phe Arg Arg Leu Glu Thr Arg Gly Pro Gly Gly Ser Pro		
35	40	45
Gly Arg Arg Pro Ser Pro Ala Ala Pro Asp Gly Ala Pro Ala Ser Gly		
50	55	60
Thr Ser Glu Pro Gly Arg Ala Arg Gly Ala Gly Val Cys Lys Ser Arg		
65	70	75 80
Pro Leu Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser Val Arg Pro		
85	90	95
Leu Glu Phe Thr Lys Val Lys Thr Phe Val Ser Arg Ile Ile Asp Thr		
100	105	110
Leu Asp Ile Gly Pro Ala Asp Thr Arg Val Ala Val Val Asn Tyr Ala		
115	120	125
Ser Thr Val Lys Ile Glu Phe Gln Leu Gln Ala Tyr Thr Asp Lys Gln		
130	135	140
Ser Leu Lys Gln Ala Val Gly Arg Ile Thr Pro Leu Ser Thr Gly Thr		
145	150	155 160
Met Ser Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val		
165	170	175
Glu Ala Gly Ala Arg Glu Pro Ser Ser Asn Ile Pro Lys Val Ala Ile		
180	185	190
Ile Val Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala		
195	200	205
Arg Ala Gln Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Arg		
210	215	220
Ala Asp Met Ala Ser Leu Lys Met Met Ala Ser Glu Pro Leu Glu Glu		
225	230	235 240
His Val Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Leu Ser Ser		
245	250	255
Arg Phe Gln Glu Thr Phe Cys Ala Leu Asp Pro Cys Val Leu Gly Thr		
260	265	270

His	Gln	Cys	Gln	His	Val	Cys	Ile	Ser	Asp	Gly	Glu	Gly	Lys	His	His
275						280					285				
Cys	Glu	Cys	Ser	Gln	Gly	Tyr	Thr	Leu	Asn	Ala	Asp	Lys	Lys	Thr	Cys
290						295					300				
Ser	Ala	Leu	Asp	Arg	Cys	Ala	Leu	Asn	Thr	His	Gly	Cys	Glu	His	Ile
305						310					315				320
Cys	Val	Asn	Asp	Arg	Ser	Gly	Ser	Tyr	His	Cys	Glu	Cys	Tyr	Glu	Gly
						325					330				335
Tyr	Thr	Leu	Asn	Glu	Asp	Arg	Lys	Thr	Cys	Ser	Ala	Gln	Asp	Lys	Cys
						340					345				350
Ala	Leu	Gly	Thr	His	Gly	Cys	Gln	His	Ile	Cys	Val	Asn	Asp	Arg	Thr
						355					360				365
Gly	Ser	His	His	Cys	Glu	Cys	Tyr	Glu	Gly	Tyr	Thr	Leu	Asn	Ala	Asp
						370					375				380
Lys	Lys	Thr	Cys	Ser	Val	Arg	Asp	Lys	Cys	Ala	Leu	Gly	Ser	His	Gly
						385					390				400
Cys	Gln	His	Ile	Cys	Val	Ser	Asp	Gly	Ala	Ala	Ser	Tyr	His	Cys	Asp
						405					410				415
Cys	Tyr	Pro	Gly	Tyr	Thr	Leu	Asn	Glu	Asp	Lys	Lys	Thr	Cys	Ser	Ala
						420					425				430
Thr	Glu	Glu	Ala	Arg	Arg	Leu	Val	Ser	Thr	Glu	Asp	Ala	Cys	Gly	Cys
						435					440				445
Glu	Ala	Thr	Leu	Ala	Phe	Gln	Asp	Lys	Val	Ser	Ser	Tyr	Leu	Gln	Arg
						450					455				460
Leu	Asn	Thr	Lys	Leu	Asp	Asp	Ile	Leu	Glu	Lys	Leu	Lys	Ile	Asn	Glu
						465					470				480
Tyr	Gly	Gln	Ile	His	Arg										
						485									

<210> 36
<211> 481
<212> PRT
<213> Mus musculus

<400> 36															
Met	Leu	Leu	Ser	Ala	Pro	Leu	Arg	His	Leu	Pro	Gly	Leu	Leu	Leu	Leu
1						5					10				15
Leu	Trp	Pro	Leu	Leu	Leu	Leu	Pro	Ser	Leu	Ala	Ala	Pro	Gly	Arg	Leu
						20					25				30
Ala	Arg	Ala	Ser	Val	Arg	Arg	Leu	Gly	Thr	Arg	Val	Pro	Gly	Gly	Ser
						35					40				45
Pro	Gly	His	Leu	Ser	Ala	Leu	Ala	Thr	Ser	Thr	Arg	Ala	Pro	Tyr	Ser
						50					55				60
Gly	Gly	Arg	Gly	Ala	Gly	Val	Cys	Lys	Ser	Arg	Pro	Leu	Asp	Leu	Val
						65					70				80
Phe	Ile	Ile	Asp	Ser	Ser	Arg	Ser	Val	Arg	Pro	Leu	Glu	Phe	Thr	Lys
						85					90				95
Val	Lys	Thr	Phe	Val	Ser	Arg	Ile	Ile	Asp	Thr	Leu	Asp	Ile	Gly	Ala
						100					105				110
Thr	Asp	Thr	Arg	Val	Ala	Val	Val	Asn	Tyr	Ala	Ser	Thr	Val	Lys	Ile
						115					120				125
Glu	Phe	Gln	Leu	Asn	Thr	Tyr	Ser	Asp	Lys	Gln	Ala	Leu	Lys	Gln	Ala
						130					135				140
Val	Ala	Arg	Ile	Thr	Pro	Leu	Ser	Thr	Gly	Thr	Met	Ser	Gly	Leu	Ala
						145					150				160
Ile	Gln	Thr	Ala	Met	Glu	Glu	Ala	Phe	Thr	Val	Glu	Ala	Gly	Ala	Arg
						165					170				175
Gly	Pro	Met	Ser	Asn	Ile	Pro	Lys	Val	Ala	Ile	Ile	Val	Thr	Asp	Gly
						180					185				190
Arg	Pro	Gln	Asp	Gln	Val	Asn	Glu	Val	Ala	Ala	Arg	Ala	Arg	Ala	Ser
						195					200				205
Gly	Ile	Glu	Leu	Tyr	Ala	Val	Gly	Val	Asp	Arg	Ala	Asp	Met	Glu	Ser

210	215	220
Leu Lys Met Met Ala Ser Lys Pro Leu Glu Glu His Val Phe Tyr Val		
225	230	235
Glu Thr Tyr Gly Val Ile Glu Lys Leu Ser Ala Arg Phe Gln Glu Thr		240
245	250	255
Phe Cys Ala Leu Asp Gln Cys Met Leu Gly Thr His Gln Cys Gln His		
260	265	270
Val Cys Val Ser Asp Gly Asp Gly Lys His His Cys Glu Cys Ser Gln		
275	280	285
Gly Tyr Thr Leu Asn Ala Asp Gly Lys Thr Cys Ser Ala Ile Asp Lys		
290	295	300
Cys Ala Leu Ser Thr His Gly Cys Glu Gln Ile Cys Ile Asn Asp Arg		
305	310	315
Asn Gly Ser Tyr His Cys Glu Cys Tyr Gly Gly Tyr Ala Leu Asn Ala		320
325	330	335
Asp Arg Arg Thr Cys Ala Ala Leu Asp Lys Cys Ala Ser Gly Thr His		
340	345	350
Gly Cys Gln His Ile Cys Val Asn Asp Gly Ala Gly Ser His His Cys		
355	360	365
Glu Cys Phe Glu Gly Tyr Thr Leu Asn Ala Asp Lys Lys Thr Cys Ser		
370	375	380
Val Arg Asn Lys Cys Ala Leu Gly Thr His Gly Cys Gln His Ile Cys		
385	390	395
Val Ser Asp Gly Ala Val Ala Tyr His Cys Asp Cys Phe Pro Gly Tyr		
405	410	415
Thr Leu Asn Asp Asp Lys Lys Thr Cys Ser Asp Ile Glu Glu Ala Arg		
420	425	430
Ser Leu Ile Ser Ile Glu Asp Ala Cys Gly Cys Gly Ala Thr Leu Ala		
435	440	445
Phe Gln Glu Lys Val Ser Ser His Leu Gln Lys Leu Asn Thr Lys Leu		
450	455	460
Asp Asn Ile Leu Lys Lys Leu Lys Val Thr Glu Tyr Gly Gln Val His		
465	470	475
Arg		480

<210> 37
 <211> 1507
 <212> PRT
 <213> Drosophila melanogaster

<400> 37			
Met Val Ser Leu Ile Asp Thr Ile Glu Ala Ala Ala Glu Lys Gln Lys			
1	5	10	15
Gln Ser Gln Ala Val Val Thr Asn Thr Ser Ala Ser Ser Ser Ser Cys			
20	25	30	
Ser Ser Ser Phe Ser Ser Ser Pro Pro Ser Ser Ser Val Gly Ser Pro			
35	40	45	
Ser Pro Gly Ala Pro Lys Thr Asn Leu Thr Ala Ser Gly Lys Pro Lys			
50	55	60	
Glu Lys Arg Arg Asn Asn Glu Lys Arg Lys Glu Lys Ser Arg Asp Ala			
65	70	75	80
Ala Arg Cys Arg Arg Ser Lys Glu Thr Glu Ile Phe Met Glu Leu Ser			
85	90	95	
Ala Ala Leu Pro Leu Lys Thr Asp Asp Val Asn Gln Leu Asp Lys Ala			
100	105	110	
Ser Val Met Arg Ile Thr Ile Ala Phe Leu Lys Ile Arg Glu Met Leu			
115	120	125	
Gln Phe Val Pro Ser Leu Arg Asp Cys Asn Asp Asp Ile Lys Gln Asp			
130	135	140	
Ile Glu Thr Ala Glu Asp Gln Gln Glu Val Lys Pro Lys Leu Glu Val			
145	150	155	160

Gly Thr Glu Asp Trp Leu Asn Gly Ala Glu Ala Arg Glu Leu Leu Lys
 165 170 175
 Gln Thr Met Asp Gly Phe Leu Leu Val Leu Ser His Glu Gly Asp Ile
 180 185 190
 Thr Tyr Val Ser Glu Asn Val Val Glu Tyr Leu Gly Ile Thr Lys Ile
 195 200 205
 Asp Thr Leu Gly Gln Gln Ile Trp Glu Tyr Ser His Gln Cys Asp His
 210 215 220
 Ala Glu Ile Lys Glu Ala Leu Ser Leu Lys Arg Glu Leu Ala Gln Lys
 225 230 235 240
 Val Lys Asp Glu Pro Gln Gln Asn Ser Gly Val Ser Thr His His Arg
 245 250 255
 Asp Leu Phe Val Arg Leu Lys Cys Thr Leu Thr Ser Arg Gly Arg Ser
 260 265 270
 Ile Asn Ile Lys Ser Ala Ser Tyr Lys Val Ile His Ile Thr Gly His
 275 280 285
 Leu Val Val Asn Ala Lys Gly Glu Arg Leu Leu Met Ala Ile Gly Arg
 290 295 300
 Pro Ile Pro His Pro Ser Asn Ile Glu Ile Pro Leu Gly Thr Ser Thr
 305 310 315 320
 Phe Leu Thr Lys His Ser Leu Asp Met Arg Phe Thr Tyr Val Asp Asp
 325 330 335
 Lys Met His Asp Leu Leu Gly Tyr Ser Pro Lys Asp Leu Leu Asp Thr
 340 345 350
 Ser Leu Phe Ser Cys Gln His Gly Ala Asp Ser Glu Arg Leu Met Ala
 355 360 365
 Thr Phe Lys Ser Val Leu Ser Lys Gly Gln Gly Glu Thr Ser Arg Tyr
 370 375 380
 Arg Phe Leu Gly Lys Tyr Gly Tyr Cys Trp Ile Leu Ser Gln Ala
 385 390 395 400
 Thr Ile Val Tyr Asp Lys Leu Lys Pro Gln Ser Val Val Cys Val Asn
 405 410 415
 Tyr Val Ile Ser Asn Leu Glu Asn Lys His Glu Ile Tyr Ser Leu Ala
 420 425 430
 Gln Gln Thr Ala Ala Ser Glu Gln Lys Glu Gln His His Gln Ala Ala
 435 440 445
 Glu Thr Glu Lys Glu Pro Glu Lys Ala Ala Asp Pro Glu Ile Ile Ala
 450 455 460
 Gln Glu Thr Lys Glu Thr Val Asn Thr Pro Ile His Thr Ser Glu Leu
 465 470 475 480
 Gln Ala Lys Pro Leu Gln Leu Glu Ser Glu Lys Ala Glu Lys Thr Ile
 485 490 495
 Glu Glu Thr Lys Thr Ile Ala Thr Ile Pro Pro Val Thr Ala Thr Ser
 500 505 510
 Thr Ala Asp Gln Ile Lys Gln Leu Pro Glu Ser Asn Pro Tyr Lys Gln
 515 520 525
 Ile Leu Gln Ala Glu Leu Leu Ile Lys Arg Glu Asn His Ser Pro Gly
 530 535 540
 Pro Arg Thr Ile Thr Ala Gln Leu Leu Ser Gly Ser Ser Ser Gly Leu
 545 550 555 560
 Arg Pro Glu Glu Lys Arg Pro Lys Ser Val Thr Ala Ser Val Leu Arg
 565 570 575
 Pro Ser Pro Ala Pro Pro Leu Thr Pro Pro Pro Thr Ala Val Leu Cys
 580 585 590
 Lys Lys Thr Pro Leu Gly Val Glu Pro Asn Leu Pro Pro Thr Thr Thr
 595 600 605
 Ala Thr Ala Ala Ile Ile Ser Ser Ser Asn Gln Gln Leu Gln Ile Ala
 610 615 620
 Gln Gln Thr Gln Leu Gln Asn Pro Gln Gln Pro Ala Gln Asp Met Ser
 625 630 635 640
 Lys Gly Phe Cys Ser Leu Phe Ala Asp Asp Gly Arg Gly Leu Thr Met
 645 650 655

Leu Lys Glu Glu Pro Asp Asp Leu Ser His His Leu Ala Ser Thr Asn
 660 665 670
 Cys Ile Gln Leu Asp Glu Met Thr Pro Phe Ser Asp Met Leu Val Gly
 675 680 685
 Leu Met Gly Thr Cys Leu Leu Pro Glu Asp Ile Asn Ser Leu Asp Ser
 690 695 700
 Thr Thr Cys Ser Thr Thr Ala Ser Gly Gln His Tyr Gln Ser Pro Ser
 705 710 715 720
 Ser Ser Ser Thr Ser Ala Pro Ser Asn Thr Ser Ser Ser Asn Asn Ser
 725 730 735
 Tyr Ala Asn Ser Pro Leu Ser Pro Leu Thr Pro Asn Ser Thr Ala Thr
 740 745 750
 Ala Ser Asn Pro Ser His Gln Gln Gln Gln His His Asn Gln Gln
 755 760 765
 Gln Gln Gln Gln Gln Gln His His Pro Gln His His Asp Asn
 770 775 780
 Ser Asn Ser Ser Asn Ile Asp Pro Leu Phe Asn Tyr Arg Glu Glu
 785 790 795 800
 Ser Asn Asp Thr Ser Cys Ser Gln His Leu His Ser Pro Ser Ile Thr
 805 810 815
 Ser Lys Ser Pro Glu Asp Ser Ser Leu Pro Ser Leu Cys Ser Pro Asn
 820 825 830
 Ser Leu Thr Gln Glu Asp Asp Phe Ser Phe Glu Ala Phe Ala Met Arg
 835 840 845
 Ala Pro Tyr Ile Pro Ile Asp Asp Asp Met Pro Leu Leu Thr Glu Thr
 850 855 860
 Asp Leu Met Trp Cys Pro Pro Glu Asp Leu Gln Thr Met Val Pro Lys
 865 870 875 880
 Glu Ile Asp Ala Ile Gln Gln Leu Gln Gln Leu Gln Gln His
 885 890 895
 His Gln Gln Tyr Ala Gly Asn Thr Gly Tyr Gln Gln Gln Gln Gln
 900 905 910
 Pro Gln Leu Gln Gln His Phe Ser Asn Ser Leu Cys Ser Ser Pro
 915 920 925
 Ala Ser Thr Val Ser Ser Leu Ser Pro Ser Pro Val Gln Gln His His
 930 935 940
 Gln Gln Gln Ala Ala Val Phe Thr Ser Asp Ser Ser Glu Leu Ala
 945 950 955 960
 Ala Leu Leu Cys Gly Ser Gly Asn Gly Thr Leu Ser Ile Leu Ala Gly
 965 970 975
 Ser Gly Val Thr Val Ala Glu Glu Cys Asn Glu Arg Leu Gln Gln His
 980 985 990
 Gln
 995 1000 1005
 Gln Leu Gln Gln Glu Leu Gln Leu Gln Glu Glu Gln Gln Gln Arg Gln
 1010 1015 1020
 Gln Leu Leu
 1025 1030 1035 1040
 Ser Leu Asn Ile Glu Cys Lys Lys Glu Lys Tyr Asp Val Gln Met Gly
 1045 1050 1055
 Gly Ser Leu Cys His Pro Met Glu Asp Ala Phe Glu Asn Asp Tyr Ser
 1060 1065 1070
 Lys Asp Ser Ala Asn Leu Asp Cys Trp Asp Leu Ile Gln Met Gln Val
 1075 1080 1085
 Val Asp Thr Glu Pro Val Ser Pro Asn Ala Ala Ser Pro Thr Pro Cys
 1090 1095 1100
 Lys Val Ser Ala Ile Gln Leu Leu Gln Gln Gln Gln Leu Gln Gln
 1105 1110 1115 1120
 Gln Gln Gln Gln Gln Asn Ile Ile Leu Asn Ala Val Pro Leu Ile
 1125 1130 1135
 Thr Ile Gln Asn Asn Lys Glu Leu Met Gln Gln Gln Gln Gln Gln
 1140 1145 1150

Gln Gln Gln Gln Glu Gln Leu Gln Gln Pro Ala Ile Lys Leu Leu
 1155 1160 1165
 Asn Gly Ala Ser Ile Ala Pro Val Asn Thr Lys Ala Thr Ile Arg Leu
 1170 1175 1180
 Val Glu Ser Lys Pro Pro Thr Thr Gln Ser Arg Met Ala Lys Val
 1185 1190 1195 1200
 Asn Leu Val Pro Gln Gln Gln His Gly Asn Lys Arg His Leu Asn
 1205 1210 1215
 Ser Ala Thr Gly Ala Gly Asn Pro Val Glu Ser Lys Arg Leu Lys Ser
 1220 1225 1230
 Gly Thr Leu Cys Leu Asp Val Gln Ser Pro Gln Leu Leu Gln Gln Leu
 1235 1240 1245
 Ile Gly Lys Asp Pro Ala Gln Gln Gln Thr Gln Ala Ala Lys Arg Ala
 1250 1255 1260
 Gly Ser Glu Arg Trp Gln Leu Ser Ala Glu Ser Lys Gln Gln Lys Gln
 1265 1270 1275 1280
 Gln Gln Gln Ser Asn Ser Val Leu Lys Asn Leu Leu Val Ser Gly
 1285 1290 1295
 Arg Asp Asp Asp Ser Glu Ala Met Ile Ile Asp Glu Asp Asn Ser
 1300 1305 1310
 Leu Val Gln Pro Ile Pro Leu Gly Lys Tyr Gly Leu Pro Leu His Cys
 1315 1320 1325
 His Thr Ser Thr Ser Ser Val Leu Arg Asp Tyr His Asn Asn Pro Leu
 1330 1335 1340
 Ile Ser Gly Thr Asn Phe Gln Leu Ser Pro Val Phe Gly Gly Ser Asp
 1345 1350 1355 1360
 Ser Ser Gly Gly Asp Gly Glu Thr Gly Ser Val Val Ser Leu Asp Asp
 1365 1370 1375
 Ser Val Pro Pro Gly Leu Thr Ala Cys Asp Thr Asp Ala Ser Ser Asp
 1380 1385 1390
 Ser Gly Ile Asp Glu Asn Ser Leu Met Asp Gly Ala Ser Gly Ser Pro
 1395 1400 1405
 Arg Lys Arg Leu Ser Ser Thr Ser Asn Ser Thr Asn Gln Ala Glu Ser
 1410 1415 1420
 Ala Pro Pro Ala Leu Asp Val Glu Thr Pro Val Thr Gln Lys Ser Val
 1425 1430 1435 1440
 Glu Glu Glu Phe Glu Gly Gly Ser Gly Ser Asn Ala Pro Ser Arg
 1445 1450 1455
 Lys Thr Ser Ile Ser Phe Leu Asp Ser Ser Asn Pro Leu Leu His Thr
 1460 1465 1470
 Pro Ala Met Met Asp Leu Val Asn Asp Asp Tyr Ile Met Gly Glu Gly
 1475 1480 1485
 Gly Phe Glu Phe Ser Asp Asn Gln Leu Glu Gln Val Leu Gly Trp Pro
 1490 1495 1500
 Glu Ile Ala
 1505

<210> 38
 <211> 879
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Ala Gly Gly Gly Asp Leu Ser Thr Arg Arg Leu Asn Glu Cys
 1 5 10 15
 Ile Ser Pro Val Ala Asn Glu Met Asn His Leu Pro Ala His Ser His
 20 25 30
 Asp Leu Gln Arg Met Phe Thr Glu Asp Gln Gly Val Asp Asp Arg Leu
 35 40 45
 Leu Tyr Asp Ile Val Phe Lys His Phe Lys Arg Asn Lys Val Glu Ile
 50 55 60
 Ser Asn Ala Ile Lys Lys Thr Phe Pro Phe Leu Glu Gly Leu Arg Asp

65	70	75	80
Arg Asp Leu Ile Thr Asn Lys Met Phe Glu Asp Ser Gln Asp Ser Cys			
85	90	95	
Arg Asn Leu Val Pro Val Gln Arg Val Val Tyr Asn Val Leu Ser Glu			
100	105	110	
Leu Glu Lys Thr Phe Asn Leu Pro Val Leu Glu Ala Leu Phe Ser Asp			
115	120	125	
Val Asn Met Gln Glu Tyr Pro Asp Leu Ile His Ile Tyr Lys Gly Phe			
130	135	140	
Glu Asn Val Ile His Asp Lys Leu Pro Leu Gln Glu Ser Glu Glu Glu			
145	150	155	160
Glu Arg Glu Glu Arg Ser Gly Leu Gln Leu Ser Leu Glu Gln Gly Thr			
165	170	175	
Gly Glu Asn Ser Phe Arg Ser Leu Thr Trp Pro Pro Ser Gly Ser Pro			
180	185	190	
Ser His Ala Gly Thr Thr Pro Pro Glu Asn Gly Leu Ser Glu His Pro			
195	200	205	
Cys Glu Thr Glu Gln Ile Asn Ala Lys Arg Lys Asp Thr Thr Ser Asp			
210	215	220	
Lys Asp Asp Ser Leu Gly Ser Gln Gln Thr Asn Glu Gln Cys Ala Gln			
225	230	235	240
Lys Ala Glu Pro Thr Glu Ser Cys Glu Gln Ile Ala Val Gln Val Asn			
245	250	255	
Asn Gly Asp Ala Gly Arg Glu Met Pro Cys Pro Leu Pro Cys Asp Glu			
260	265	270	
Glu Ser Pro Glu Ala Glu Leu His Asn His Gly Ile Gln Ile Asn Ser			
275	280	285	
Cys Ser Val Arg Leu Val Asp Ile Lys Lys Glu Lys Pro Phe Ser Asn			
290	295	300	
Ser Lys Val Glu Cys Gln Ala Gln Ala Arg Thr His His Asn Gln Ala			
305	310	315	320
Ser Asp Ile Ile Val Ile Ser Ser Glu Asp Ser Glu Gly Ser Thr Asp			
325	330	335	
Val Asp Glu Pro Leu Glu Val Phe Ile Ser Ala Pro Arg Ser Glu Pro			
340	345	350	
Val Ile Asn Asn Asp Asn Pro Leu Glu Ser Asn Asp Glu Lys Glu Gly			
355	360	365	
Gln Glu Ala Thr Cys Ser Arg Pro Gln Ile Val Pro Glu Pro Met Asp			
370	375	380	
Phe Arg Lys Leu Ser Thr Phe Arg Glu Ser Phe Lys Lys Arg Val Ile			
385	390	395	400
Gly Gln Asp His Asp Phe Ser Glu Ser Ser Glu Glu Glu Ala Pro Ala			
405	410	415	
Glu Ala Ser Ser Gly Ala Leu Arg Ser Lys His Gly Glu Lys Ala Pro			
420	425	430	
Met Thr Ser Arg Ser Thr Ser Thr Trp Arg Ile Pro Ser Arg Lys Arg			
435	440	445	
Arg Phe Ser Ser Ser Asp Phe Ser Asp Leu Ser Asn Gly Glu Glu Leu			
450	455	460	
Gln Glu Thr Cys Ser Ser Ser Leu Arg Arg Gly Ser Gly Ser Gln Pro			
465	470	475	480
Gln Glu Pro Glu Asn Lys Lys Cys Ser Cys Val Met Cys Phe Pro Lys			
485	490	495	
Gly Val Pro Arg Ser Gln Glu Ala Arg Thr Glu Ser Ser Gln Ala Ser			
500	505	510	
Asp Met Met Asp Thr Met Asp Val Glu Asn Asn Ser Thr Leu Glu Lys			
515	520	525	
His Ser Gly Lys Arg Arg Lys Lys Arg Arg His Arg Ser Lys Val Asn			
530	535	540	
Gly Leu Gln Arg Gly Arg Lys Lys Asp Arg Pro Arg Lys His Leu Thr			
545	550	555	560
Leu Asn Asn Lys Val Gln Lys Lys Arg Trp Gln Gln Arg Gly Arg Lys			

	565	570	575
Ala Asn Thr Arg Pro Leu Lys Arg Arg Arg Lys Arg Gly Pro Arg Ile	580	585	590
Pro Lys Asp Glu Asn Ile Asn Phe Lys Gln Ser Glu Leu Pro Val Thr	595	600	605
Cys Gly Glu Val Lys Gly Thr Leu Tyr Lys Glu Arg Phe Lys Gln Gly	610	615	620
Thr Ser Lys Lys Cys Ile Gln Ser Glu Asp Lys Lys Trp Phe Thr Pro	625	630	640
Arg Glu Phe Glu Ile Glu Gly Asp Arg Gly Ala Ser Lys Asn Trp Lys	645	650	655
Leu Ser Ile Arg Cys Gly Gly Tyr Thr Leu Lys Val Leu Met Glu Asn	660	665	670
Lys Phe Leu Pro Glu Pro Pro Ser Thr Arg Lys Lys Arg Ile Leu Glu	675	680	685
Ser His Asn Asn Thr Leu Val Asp Pro Cys Glu Glu His Lys Lys Lys	690	695	700
Asn Pro Asp Ala Ser Val Lys Phe Ser Glu Phe Leu Lys Lys Cys Ser	705	710	720
Glu Thr Trp Lys Thr Ile Phe Ala Lys Glu Lys Gly Lys Phe Glu Asp	725	730	735
Met Ala Lys Ala Asp Lys Ala His Tyr Glu Arg Glu Met Lys Thr Tyr	740	745	750
Ile Pro Pro Lys Gly Glu Lys Lys Lys Phe Lys Asp Pro Asn Ala	755	760	765
Pro Lys Arg Pro Pro Leu Ala Phe Phe Leu Phe Cys Ser Glu Tyr Arg	770	775	780
Pro Lys Ile Lys Gly Glu His Pro Gly Leu Ser Ile Asp Asp Val Val	785	790	800
Lys Lys Leu Ala Gly Met Trp Asn Asn Thr Ala Ala Ala Asp Lys Gln	805	810	815
Phe Tyr Glu Lys Lys Ala Ala Lys Leu Lys Glu Lys Tyr Lys Lys Asp	820	825	830
Ile Ala Ala Tyr Arg Ala Lys Gly Lys Pro Asn Ser Ala Lys Lys Arg	835	840	845
Val Val Lys Ala Glu Lys Ser Lys Lys Lys Glu Glu Glu Glu Asp	850	855	860
Glu Glu Asp Glu Gln Glu Glu Glu Asn Glu Glu Asp Asp Asp Lys	865	870	875

<210> 39
<211> 284
<212> PRT
<213> Gallus gallus

<400> 39

Met Glu Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu	1	5	10	15
Asn Ala Ile Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gln Ala	20	25	30	
Glu Asp Arg Cys Lys Gln Leu Glu Glu Gln Gln Gly Leu Gln Lys	35	40	45	
Lys Leu Lys Gly Thr Glu Asp Glu Val Glu Lys Tyr Ser Glu Ser Val	50	55	60	
Lys Glu Ala Gln Glu Lys Leu Glu Gln Ala Glu Lys Lys Ala Thr Asp	65	70	75	80
Ala Glu Ala Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu	85	90	95	
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys	100	105	110	
Leu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys	115	120	125	

Val	Ile	Glu	Asn	Arg	Ala	Met	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln
130						135					140				
Glu	Met	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
145					150					155					160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Val	Leu	Glu	Gly	Glu	Leu
					165				170					175	
Glu	Arg	Ser	Glu	Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Arg	Val	Arg	Gln
					180				185					190	
Leu	Glu	Glu	Leu	Arg	Thr	Met	Asp	Gln	Ser	Leu	Lys	Ser	Leu	Ile	
					195				200				205		
Ala	Ser	Glu	Glu	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu	
					210		215				220				
Ile	Lys	Leu	Leu	Gly	Glu	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu
					245				250					255	
Glu	Glu	Ser	Leu	Ala	Ser	Ala	Lys	Glu	Glu	Asn	Val	Gly	Ile	His	Gln
					260				265					270	
Val	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Leu				
					275				280						

<210> 40

<211> 284

<212> PRT

<213> Homo sapiens

<400> 40

Met	Asp	Ala	Ile	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu	
1				5				10				15			
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
					20			25				30			
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ser	Leu	Gln	Lys
					35			40				45			
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
					50			55			60				
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Thr	Asp
					65			70			75				80
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
					85			90						95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
					100			105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
					115			120				125			
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
					130			135				140			
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg
					145			150			155				160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu
					165			170				175			
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu
					180			185				190			
Leu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
					195			200				205			
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Arg	Tyr	Glu	Glu	
					210			215			220				
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
					225			230			235				240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
					245			250			255				
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
					260			265			270				
Glu	Leu	Asp	His	Ala	Leu	Asn	Asp	Met	Thr	Ser	Ile				

<210> 41
 <211> 284
 <212> PRT
 <213> Gallus gallus

<400> 41
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Ile Val Gln Leu Glu Lys
 35 40 45
 Gln Leu Arg Val Thr Glu Asp Ser Arg Asp Gln Val Leu Glu Glu Leu
 50 55 60
 His Lys Ser Glu Asp Ser Leu Leu Ser Ala Glu Glu Asn Ala Ala Lys
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Leu Glu Gly Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Leu Lys Leu Val Thr Asn Glu Ala Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Asn Met His Gln
 260 265 270
 Met Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Met
 275 280

<210> 42
 <211> 248
 <212> PRT
 <213> Gallus gallus

<400> 42
 Met Ala Gly Ile Ser Ser Ile Asp Ala Val Lys Lys Lys Ile Gln Ser
 1 5 10 15
 Leu Gln Gln Val Ala Asp Glu Ala Glu Glu Arg Ala Glu His Leu Gln
 20 25 30
 Arg Glu Ala Asp Ala Glu Arg Gln Ala Arg Glu Arg Ala Glu Ala Glu
 35 40 45
 Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Glu Leu Asp
 50 55 60
 Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala
 65 70 75 80
 Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Asn

	85		90		95										
Arg	Ala	Met	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln	Glu	Met	Gln	Leu
			100				105							110	
Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg	Lys	Tyr	Glu	Glu
							115							125	
Val	Ala	Arg	Lys	Leu	Val	Val	Leu	Glu	Gly	Glu	Leu	Glu	Arg	Ser	Glu
							130							140	
Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Arg	Val	Arg	Gln	Leu	Glu	Glu	Glu
							145							155	
Leu	Arg	Thr	Met	Asp	Gln	Ser	Leu	Lys	Ser	Leu	Ile	Ala	Ser	Glu	Glu
							165							175	
Glu	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Ile	Lys	Leu	Leu	
							180							190	
Gly	Glu	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg
							195							205	
Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu	Glu	Glu	Ser	Leu
							210							220	
Ala	Ser	Ala	Lys	Glu	Glu	Asn	Val	Gly	Ile	His	Gln	Val	Leu	Asp	Gln
						225								235	
Thr	Leu	Leu	Glu	Leu	Asn	Asn	Leu								240
							245								

<210> 43

<211> 284

<212> PRT

<213> Homo sapiens

<400> 43

Met	Glu	Ala	Ile	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu	
						1			5		10			15	
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Glu	Gln	Lys	Gln	Ala
							20			25				30	
Glu	Glu	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Ala	Ala	Met	Gln	Lys
						35			40				45		
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
						50			55				60		
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Ala	Asp
						65			70			75			80
Ala	Glu	Ala	Glu	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
						85			90				95		
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
						100			105				110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
						115			120				125		
Val	Ile	Glu	Asn	Arg	Ala	Leu	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln
						130			135				140		
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
						145			150			155			160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
						165			170				175		
Glu	Arg	Thr	Glu	Glu	Arg	Ala	Glu	Leu	Ala	Glu	Ser	Lys	Cys	Ser	Glu
						180			185				190		
Leu	Glu	Glu	Leu	Lys	Asn	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
						195			200				205		
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	
						210			215				220		
Ile	Lys	Ile	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
						225			230			235			240
Phe	Ala	Glu	Arg	Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu
						245			250			255			
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
						260			265				270		

Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
 275 280

<210> 44
 <211> 245
 <212> PRT
 <213> Gallus gallus

<400> 44
 Met Ala Ala Leu Ser Ser Leu Glu Ala Val Arg Lys Lys Ile Arg Ser
 1 5 10 15
 Leu Gln Glu Gln Ala Asp Ala Ala Glu Glu Arg Ala Gly Lys Leu Gln
 20 25 30
 Arg Glu Val Asp Gln Glu Arg Ala Leu Arg Glu Glu Ala Glu Ser Glu
 35 40 45
 Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Glu Leu Asp
 50 55 60
 Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala
 65 70 75 80
 Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Asn
 85 90 95
 Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu
 100 105 110
 Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg Lys Tyr Glu Glu
 115 120 125
 Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu Glu Arg Ala Glu
 130 135 140
 Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu Leu Glu Glu Glu
 145 150 155 160
 Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu Ala Gln Ala Glu
 165 170 175
 Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu Ile Lys Val Leu
 180 185 190
 Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg
 195 200 205
 Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Asp Gln Leu
 210 215 220
 Tyr Gln Gln Leu Glu Gln Asn Ser Arg Leu Thr Asn Glu Leu Lys Leu
 225 230 235 240
 Ala Leu Asn Glu Asp
 245

<210> 45
 <211> 281
 <212> PRT
 <213> Gallus gallus

<400> 45
 Met Asp Ala Ile Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ala Leu Gln Lys
 35 40 45
 Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ser Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Asp Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110

Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Asp Gln Leu Tyr Gln Gln Leu Glu Gln Asn Ser Arg Leu Thr Asn
 260 265 270
 Glu Leu Lys Leu Ala Leu Asn Glu Asp
 275 280

<210> 46

<211> 284

<212> PRT

<213> Brachydanio rerio

<400> 46

Met Asp Ala Ile Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Thr Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Leu Val Ala Leu Gln Lys
 35 40 45
 Lys Leu Lys Ala Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Gly Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Leu Lys Asp Glu Glu Lys Met Glu Leu Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Val Glu Gly Glu Leu
 165 170 175
 Glu Arg Thr Glu Glu Arg Ala Glu Leu Asn Glu Gly Lys Cys Ser Glu
 180 185 190
 Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Met Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Ala Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Ala Lys Leu Glu Lys Thr Ile Asp Asp Leu
 245 250 255
 Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu

260	265	270
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile		
275	280	

<210> 47
<211> 284
<212> PRT
<213> Coturnix coturnix japonica

<400> 47

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
				20					25					30	
Glu	Glu	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ala	Leu	Gln	Lys
				35					40					45	
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ser	Leu
				50					55					60	
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Asp	Lys	Lys	Ala	Thr	Asp
				65					70					80	
Ala	Glu	Ser	Glu	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
				85					90					95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
				100					105					110	
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
				115					120					125	
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
				130					135					140	
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
				145					150					160	
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
				165					170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
				180					185					190	
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
				195					200					205	
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
				210					215					220	
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
				225					230					240	
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
				260					265					270	
Glu	Leu	Asp	His	Ala	Leu	Asn	Asp	Met	Thr	Ser	Ile				
				275					280						

<210> 48
<211> 284
<212> PRT
<213> Mus musculus

<400> 48

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
				20					25					30	
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ser	Leu	Gln	Lys
				35					40					45	
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
				50					55					60	
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Thr	Asp

65	70	75	80
Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu			
85	90	95	
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys			
100	105	110	
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys			
115	120	125	
Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln			
130	135	140	
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg			
145	150	155	160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu			
165	170	175	
Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu			
180	185	190	
Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu			
195	200	205	
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu			
210	215	220	
Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu			
225	230	235	240
Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu			
245	250	255	
Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu			
260	265	270	
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile			
275	280		

<210> 49
<211> 284
<212> PRT
<213> Rana temporaria

<400> 49			
Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu			
1	5	10	15
Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gly Ala			
20	25	30	
Glu Asp Lys Ser Lys Gln Leu Glu Asp Glu Leu Val Ala Met Gln Lys			
35	40	45	
Lys Met Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu			
50	55	60	
Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp			
65	70	75	80
Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu			
85	90	95	
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys			
100	105	110	
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys			
115	120	125	
Val Ile Glu Asn Arg Ala Leu Lys Asp Glu Glu Lys Ile Glu Leu Gln			
130	135	140	
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg			
145	150	155	160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu			
165	170	175	
Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu			
180	185	190	
Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu			
195	200	205	
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu			
210	215	220	

Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Thr Val Ala Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
 260 265 270
 Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
 275 280

<210> 50
<211> 284
<212> PRT
<213> Rattus norvegicus

<400> 50
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Asp Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ser Leu Gln Lys
 35 40 45
 Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50 55 60
 Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
 65 70 75 80
 Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
 260 265 270
 Glu Leu Asp His Ala Leu Lys Asp Met Thr Ser Ile
 275 280

<210> 51
<211> 284
<212> PRT
<213> Xenopus laevis

<400> 51
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Gly Ala
 20 25 30

Glu	Asp	Lys	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ala	Leu	Gln	Lys
35						40					45				
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
50						55				60					
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ser	Asp	Lys	Lys	Ala	Thr	Asp
65						70				75			80		
Ala	Glu	Gly	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
	85							90				95			
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ser	Thr	Ala	Leu	Gln	Lys
	100							105				110			
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
	115							120				125			
Val	Ile	Glu	Asn	Arg	Ala	Leu	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln
	130							135			140				
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
	145							150			155			160	
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
								165		170			175		
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
								180		185			190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
								195		200			205		
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
								210		215			220		
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
	225							230			235			240	
Phe	Ala	Glu	Arg	Thr	Val	Ala	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
								245		250			255		
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
								260		265			270		
Glu	Leu	Asp	His	Ala	Leu	Asn	Asp	Met	Thr	Ser	Ile				
								275		280					

<210> 52

<211> 284

<212> PRT

<213> Gallus gallus

<400> 52

Met	Glu	Ala	Ile	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu	
1				5				10				15			
Asn	Ala	Ile	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Gln	Ala
								20		25			30		
Glu	Asp	Arg	Cys	Lys	Gln	Leu	Glu	Glu	Gln	Gln	Gly	Leu	Gln	Lys	
								35		40			45		
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Val	Glu	Lys	Tyr	Ser	Glu	Ser	Val
								50		55			60		
Lys	Glu	Ala	Gln	Glu	Lys	Leu	Glu	Gln	Ala	Glu	Lys	Lys	Ala	Thr	Asp
								65		70			75		80
Ala	Glu	Ala	Glu	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
								85		90			95		
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
								100		105			110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
								115		120			125		
Val	Ile	Glu	Asn	Arg	Ala	Met	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln
								130		135			140		
Glu	Met	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
								145		150			155		160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Val	Leu	Glu	Gly	Glu	Leu
								165		170			175		
Glu	Arg	Ser	Glu	Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Lys	Cys	Gly	Asp

	180	185	190												
Leu	Glu	Glu	Glu	Leu	Lys	Ile	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
	195			200								205			
Ala	Gln	Ala	Asp	Lys	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
	210			215							220				
Ile	Lys	Leu	Leu	Gly	Glu	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
	225			230						235			240		
Phe	Ala	Glu	Arg	Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu
	245			250						255					
Glu	Asp	Glu	VaI	Tyr	Ala	Gln	Lys	Met	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
	260			265						270					
Glu	Leu	Asp	Asn	Ala	Leu	Asn	Asp	Ile	Thr	Ser	Leu				
	275			280											

<210> 53

<211> 284

<212> PRT

<213> Homo sapiens

<400> 53

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10				15		
Asn	Ala	Ile	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Gln	Ala
				20					25				30		
Glu	Asp	Arg	Cys	Lys	Gln	Leu	Glu	Glu	Glu	Gln	Gln	Ala	Leu	Gln	Lys
				35					40				45		
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Val	Glu	Lys	Tyr	Ser	Glu	Ser	Val
				50					55				60		
Lys	Glu	Ala	Gln	Glu	Lys	Leu	Glu	Gln	Ala	Glu	Lys	Lys	Ala	Thr	Asp
				65					70				75		80
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
									85				90		95
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
									100				105		110
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
									115				120		125
Val	Ile	Glu	Asn	Arg	Ala	Met	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln
									130				135		140
Glu	Met	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ser	Asp	Arg
									145				150		160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Leu	Glu	Gly	Glu	Leu
									165				170		175
Glu	Arg	Ser	Glu	Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Lys	Cys	Gly	Asp
									180				185		190
Leu	Glu	Glu	Leu	Lys	Ile	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
									195				200		205
Ala	Gln	Ala	Asp	Lys	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	
									210				215		220
Ile	Lys	Leu	Leu	Glu	Glu	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
									225				230		240
Phe	Ala	Glu	Arg	Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu
									245				250		255
Glu	Asp	Glu	VaI	Tyr	Ala	Gln	Lys	Met	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
									260				265		270
Glu	Leu	Asp	Asn	Ala	Leu	Asn	Asp	Ile	Thr	Ser	Leu				
									275				280		

<210> 54

<211> 284

<212> PRT

<213> Mus musculus

<400> 54

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Ile	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Gln	Ala
				20					25					30	
Glu	Asp	Arg	Cys	Lys	Gln	Leu	Glu	Glu	Glu	Gln	Gln	Ala	Leu	Gln	Lys
				35				40					45		
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Val	Glu	Lys	Tyr	Ser	Glu	Ser	Val
				50				55			60				
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Gln	Ala	Glu	Lys	Lys	Ala	Thr	Asp
				65				70			75			80	
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
				85				90					95		
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
				100				105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
				115				120					125		
Val	Ile	Glu	Asn	Arg	Ala	Met	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln
				130				135				140			
Glu	Met	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ser	Asp	Arg
				145				150			155			160	
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Leu	Glu	Gly	Glu	Leu
				165				170					175		
Glu	Arg	Ser	Glu	Glu	Arg	Ala	Glu	Val	Ala	Glu	Ser	Lys	Cys	Gly	Asp
				180				185					190		
Leu	Glu	Glu	Leu	Lys	Ile	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
				195				200				205			
Ala	Gln	Ala	Asp	Lys	Tyr	Ser	Thr	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	
				210				215				220			
Ile	Lys	Leu	Leu	Glu	Glu	Lys	Leu	Glu	Ala	Glu	Thr	Arg	Ala	Glu	
				225				230			235			240	
Phe	Ala	Glu	Arg	Ser	Val	Ala	Lys	Leu	Glu	Lys	Thr	Ile	Asp	Asp	Leu
				245				250					255		
Glu	Asp	Glu	Val	Tyr	Ala	Gln	Lys	Met	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
				260				265					270		
Glu	Leu	Asp	Asn	Ala	Leu	Asn	Asp	Ile	Thr	Ser	Leu				
				275				280							

<210> 55
<211> 284
<212> PRT
<213> Sus scrofa

<400> 55

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Asp	Glu	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
				20				25					30		
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ser	Leu	Gln	Lys
				35				40				45			
Lys	Leu	Lys	Ala	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
				50				55			60				
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Thr	Asp
				65				70			75			80	
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Phe	Glu
				85				90					95		
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
				100				105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
				115				120					125		
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
				130				135					140		

Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg
145				150					155						160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu
				165					170						175
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu
				180					185						190
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
				195					200						205
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
				210					215						220
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
				225					230						240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250						255
Glu	Asp	Glu	Leu	Tyr	Ala	Gln	Lys	Leu	Lys	Tyr	Lys	Ala	Ile	Ser	Glu
				260					265						270
Glu	Leu	Asp	His	Ala	Leu	Asn	Asp	Met	Thr	Ser	Ile				
				275					280						

<210> 56
<211> 284
<212> PRT
<213> Gallus gallus

<400> 56															
Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5					10						15
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
				20					25						30
Glu	Glu	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ala	Leu	Gln	Lys
				35					40						45
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ser	Leu
				50					55						60
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Asp	Lys	Lys	Ala	Thr	Asp
				65					70						80
Ala	Glu	Ser	Glu	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
				85					90						95
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
				100					105						110
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
				115					120						125
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
				130					135						140
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
				145					150						160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
				165					170						175
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Gln	Val	Arg	Gln
				180					185						190
Leu	Glu	Glu	Gln	Leu	Arg	Ile	Met	Asp	Gln	Thr	Leu	Lys	Ala	Leu	Met
				195					200						205
Ala	Ala	Glu	Asp	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	Glu
				210					215						220
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
				225					230						240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250						255
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Asn	Met	His	Gln
				260					265						270
Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met				
				275					280						

<210> 57
<211> 284
<212> PRT
<213> Coturnix coturnix japonica

<400> 57

Met	Asp	Ala	Ile	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu	
1				5				10					15		
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
				20				25					30		
Glu	Glu	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ala	Leu	Gln	Lys
				35				40					45		
Lys	Leu	Lys	Gly	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ser	Leu
				50				55					60		
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Asp	Lys	Lys	Ala	Thr	Asp
				65				70				75		80	
Ala	Glu	Ser	Glu	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
				85				90					95		
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
				100				105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
				115				120					125		
Val	Ile	Glu	Asn	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
				130				135					140		
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Glu	Ala	Asp	Arg
				145				150				155		160	
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Gly	Asp	Leu
				165				170					175		
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Ser	Lys	Cys	Ala	Glu
				180				185					190		
Leu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
				195				200					205		
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	
				210				215					220		
Ile	Lys	Val	Leu	Thr	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
				225				230				235		240	
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245				250					255		
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Asn	Met	His	Gln
				260				265					270		
Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met				
				275				280							

<210> 58
<211> 248
<212> PRT
<213> Xenopus laevis

<400> 58

Met	Ala	Gly	Ile	Thr	Ser	Leu	Glu	Ala	Val	Lys	Arg	Lys	Ile	Lys	Cys
1				5				10					15		
Leu	Gln	Asp	Gln	Ala	Asp	Glu	Ala	Glu	Glu	Arg	Ala	Glu	Lys	Leu	Gln
				20				25					30		
Arg	Glu	Arg	Asp	Met	Glu	Arg	Lys	Leu	Arg	Glu	Ala	Ala	Glu	Gly	Asp
				35				40					45		
Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu	Glu	Leu	Asp	
				50				55				60			
Arg	Ala	Gln	Glu	Arg	Leu	Ser	Thr	Ala	Leu	Gln	Lys	Leu	Glu	Glu	Ala
				65				70				75		80	
Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys	Val	Ile	Glu	Asn
				85				90					95		
Arg	Ala	Leu	Lys	Asp	Glu	Glu	Lys	Met	Glu	Leu	Gln	Glu	Ile	Gln	Leu

100	105	110
Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg Lys Tyr Glu Glu		
115	120	125
Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu Glu Arg Ala Glu		
130	135	140
Glu Arg Ala Glu Leu Ser Glu Ser His Tyr Arg Gln Leu Glu Asp Gln		
145	150	155
Gln Arg Ile Met Asp Gln Thr Leu Lys Thr Leu Ile Ala Ser Glu Glu		
165	170	175
Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu Ile Lys Val Leu		
180	185	190
Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg		
195	200	205
Thr Val Ala Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Glu Lys Val		
210	215	220
Ala His Ala Lys Glu Glu Asn Leu Asn Met His Gln Met Leu Asp Gln		
225	230	235
Thr Leu Leu Glu Leu Asn Asn Met		
245		

<210> 59
<211> 284
<212> PRT
<213> Gallus gallus

<400> 59	15	Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
1	5	10
Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala		
20	25	30
Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Ile Val Gln Leu Glu Lys		
35	40	45
Gln Leu Arg Val Thr Glu Asp Ser Arg Asp Gln Val Leu Glu Glu Leu		
50	55	60
His Lys Ser Glu Asp Ser Leu Leu Phe Ala Glu Glu Asn Ala Ala Lys		
65	70	75
Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu		
85	90	95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys		
100	105	110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys		
115	120	125
Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln		
130	135	140
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg		
145	150	155
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu		
165	170	175
Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu		
180	185	190
Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu		
195	200	205
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu		
210	215	220
Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu		
225	230	235
Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu		
245	250	255
Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Asn Met His Gln		
260	265	270
Met Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Met		
275	280	

<210> 60
 <211> 284
 <212> PRT
 <213> Coturnix coturnix japonica

<400> 60
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Glu Arg Ser Lys Gln Leu Glu Asp Asp Ile Val Gln Leu Glu Lys
 35 40 45
 Gln Leu Arg Val Thr Glu Asp Ser Arg Asp Gln Val Leu Glu Glu Leu
 50 55 60
 His Lys Ser Glu Asp Ser Leu Leu Ser Ala Glu Glu Ile Ala Ala Lys
 65 70 75 80
 Ala Glu Ser Glu Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85 90 95
 Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
 100 105 110
 Leu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
 115 120 125
 Val Ile Glu Asn Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
 130 135 140
 Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Glu Ala Asp Arg
 145 150 155 160
 Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Gly Asp Leu
 165 170 175
 Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Ser Lys Cys Ala Glu
 180 185 190
 Leu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
 195 200 205
 Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu
 210 215 220
 Ile Lys Val Leu Thr Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
 225 230 235 240
 Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
 245 250 255
 Glu Glu Lys Val Ala His Ala Lys Glu Glu Asn Leu Asn Met His Gln
 260 265 270
 Met Leu Asp Gln Thr Leu Leu Glu Leu Asn Asn Met
 275 280

<210> 61
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 61
 Cys Arg Leu Arg Ile Phe Leu Arg Thr Ala Ser Ser Glu His Leu His
 1 5 10 15
 Glu Arg Lys Leu Arg Glu Thr Ala Glu Ala Asp Val Ala Ser Leu Asn
 20 25 30
 Arg Arg Ile Gln Leu Val Glu Glu Leu Asp Arg Ala Gln Glu Arg
 35 40 45
 Leu Ala Thr Val Leu Gln Lys Leu Glu Glu Ala Glu Lys Ala Ala Asp
 50 55 60
 Glu Ser Glu Arg Gly Met Lys Val Ile Glu Ser Arg Ala Gln Lys Asp
 65 70 75 80
 Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu Lys Glu Ala Lys His
 85 90 95
 Ile Ala Glu Asp Ala Asp Arg Lys Tyr Glu Glu Val Ala Arg Lys Leu

	100		105		110										
Val	Ile	Ile	Glu	Ser	Asp	Leu	Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu
		115				120						125			
Ser	Glu	Gly	Gln	Val	Arg	Gln	Leu	Glu	Glu	Gln	Leu	Arg	Ile	Met	Asp
		130				135						140			
Ser	Asp	Leu	Glu	Ser	Ile	Asn	Ala	Ala	Glu	Asp	Lys	Tyr	Ser	Gln	Lys
		145				150					155				160
Glu	Asp	Arg	Tyr	Glu	Glu	Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	
		165				170						175			
Glu	Ala	Glu	Thr	Arg	Ala	Glu	Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu
		180				185						190			
Glu	Lys	Ser	Ile	Asp	Asp	Leu	Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu
		195				200						205			
Glu	Asn	Leu	Ser	Met	His	Gln	Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu
		210				215						220			
Asn	Asn	Met													
		225													

<210> 62

<211> 284

<212> PRT

<213> Rattus norvegicus

<400> 62

Met	Asp	Ala	Ile	Lys	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
							1	5	10				15		
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala	Ala
								20	25				30		
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Glu	Asp	Ile	Ser	Ala	Lys	Glu	Lys
						35	40				45				
Leu	Leu	Arg	Ala	Ser	Glu	Asp	Glu	Arg	Asp	Arg	Val	Leu	Glu	Glu	Leu
						50	55				60				
His	Lys	Ala	Glu	Asp	Ser	Leu	Leu	Ala	Ala	Asp	Glu	Thr	Ala	Ala	Lys
						65	70			75			80		
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
						85			90			95			
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
						100	105			110					
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
						115	120			125					
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
						130	135			140					
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg
						145	150			155			160		
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu
						165			170			175			
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu
						180	185			190					
Leu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu	
						195	200			205					
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu	
						210	215			220					
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
						225	230			235			240		
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
						245			250			255			
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Ser	Met	His	Gln
						260	265			270					
Met	Leu	His	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met				
						275	280								

<210> 63

<211> 281
<212> PRT
<213> Rattus norvegicus

<400> 63

Met	Asp	Ala	Ile	Lys	Lys	Met	Gln	Met	Leu	Lys	Leu	Asp	Lys	Glu
1				5				10					15	
Asn	Ala	Leu	Asp	Arg	Ala	Glu	Gln	Ala	Glu	Ala	Asp	Lys	Lys	Ala
				20				25					30	
Glu	Asp	Arg	Ser	Lys	Gln	Leu	Glu	Asp	Glu	Leu	Val	Ser	Leu	Gln
				35				40					45	
Lys	Leu	Lys	Ala	Thr	Glu	Asp	Glu	Leu	Asp	Lys	Tyr	Ser	Glu	Ala
				50				55					60	
Lys	Asp	Ala	Gln	Glu	Lys	Leu	Glu	Leu	Ala	Glu	Lys	Lys	Ala	Thr
				65				70					80	
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val
				85				90					95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln
				100				105					110	
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met
				115				120					125	
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile
				130				135					140	
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp
				145				150					155	
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp
				165				170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala
				180				185					190	
Leu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
				195				200					205	
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Lys	Tyr	Glu	Glu
				210				215					220	
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala
				225				230					235	
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp
				245				250					255	
Glu	Asp	Gln	Leu	Tyr	His	Gln	Leu	Glu	Gln	Asn	Arg	Arg	Leu	Thr
				260				265					270	
Glu	Leu	Lys	Leu	Ala	Leu	Asn	Glu	Asp						
				275				280						

<210> 64
<211> 251
<212> PRT
<213> Rattus norvegicus

<400> 64

Met	Ala	Gly	Ser	Ser	Ser	Leu	Glu	Ala	Val	Arg	Arg	Lys	Ile	Arg	Ser
1				5				10					15		
Leu	Gln	Glu	Gln	Ala	Asp	Ala	Ala	Glu	Glu	Arg	Ala	Gly	Ser	Leu	Gln
				20				25					30		
Arg	Glu	Leu	Asp	Gln	Glu	Arg	Lys	Leu	Arg	Glu	Thr	Ala	Glu	Ala	Asp
				35				40					45		
Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu	Glu	Leu	Asp	
				50				55					60		
Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys	Leu	Glu	Ala	
				65				70					75		80
Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys	Val	Ile	Glu	Ser
				85				90					95		
Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln	Glu	Ile	Gln	Leu
				100				105					110		

Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg Lys Tyr Glu Glu
 115 120 125
 Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu Glu Arg Ala Glu
 130 135 140
 Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu Leu Glu Glu Glu
 145 150 155 160
 Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu Ala Gln Ala Glu
 165 170 175
 Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu Ile Lys Val Leu
 180 185 190
 Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg
 195 200 205
 Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Asp Lys Phe
 210 215 220
 Leu Cys Phe Ser Pro Pro Lys Thr Pro Ser Ser Ser Arg Met Ser His
 225 230 235 240
 Leu Ser Glu Leu Cys Ile Cys Leu Leu Ser Ser
 245 250

<210> 65
 <211> 245
 <212> PRT
 <213> Rattus norvegicus

<400> 65
 Met Ala Gly Ser Ser Ser Leu Glu Ala Val Arg Arg Lys Ile Arg Ser
 1 5 10 15
 Leu Gln Glu Gln Ala Asp Ala Ala Glu Glu Arg Ala Gly Ser Leu Gln
 20 25 30
 Arg Glu Leu Asp Gln Glu Arg Lys Leu Arg Glu Thr Ala Glu Ala Asp
 35 40 45
 Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Glu Leu Asp
 50 55 60
 Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala
 65 70 75 80
 Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Ser
 85 90 95
 Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu
 100 105 110
 Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg Lys Tyr Glu Glu
 115 120 125
 Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu Glu Arg Ala Glu
 130 135 140
 Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu Leu Glu Glu Glu
 145 150 155 160
 Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu Ala Gln Ala Glu
 165 170 175
 Lys Tyr Ser Gln Lys Glu Asp Lys Tyr Glu Glu Glu Ile Lys Val Leu
 180 185 190
 Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg
 195 200 205
 Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Asp Gln Leu
 210 215 220
 Tyr His Gln Leu Glu Gln Asn Arg Arg Leu Thr Asn Glu Leu Lys Leu
 225 230 235 240
 Ala Leu Asn Glu Asp
 245

<210> 66
 <211> 961
 <212> PRT
 <213> Bos taurus

<400> 66
 Met Asn Phe Leu Arg Gly Val Met Gly Gly Gln Ser Ala Gly Pro Gln
 1 5 10 15
 His Thr Glu Ala Glu Thr Ile Gln Lys Leu Cys Asp Arg Val Ala Ser
 20 25 30
 Ser Thr Leu Leu Asp Asp Arg Arg Asn Ala Val Arg Ala Leu Lys Ser
 35 40 45
 Leu Ser Lys Lys Tyr Arg Leu Glu Val Gly Ile Gln Ala Met Glu His
 50 55 60
 Leu Ile His Val Leu Gln Thr Asp Arg Ser Asp Ser Glu Ile Ile Gly
 65 70 75 80
 Tyr Ala Leu Asp Thr Leu Tyr Asn Ile Ile Ser Asn Asp Glu Glu Glu
 85 90 95
 Glu Val Glu Glu Asn Ser Thr Arg Gln Ser Glu Asp Leu Gly Ser Gln
 100 105 110
 Phe Thr Glu Ile Phe Ile Lys Gln Gln Glu Asn Val Thr Leu Leu Leu
 115 120 125
 Ser Leu Leu Glu Glu Phe Asp Phe His Val Arg Trp Pro Gly Val Lys
 130 135 140
 Leu Leu Thr Ser Leu Leu Lys Gln Leu Gly Pro Gln Val Gln Gln Ile
 145 150 155 160
 Ile Leu Val Ser Pro Met Gly Val Ser Arg Leu Met Asp Leu Leu Ala
 165 170 175
 Asp Ser Arg Glu Val Ile Arg Asn Asp Gly Val Leu Leu Leu Gln Ala
 180 185 190
 Leu Thr Arg Ser Asn Gly Ala Ile Gln Lys Ile Val Ala Phe Glu Asn
 195 200 205
 Ala Phe Glu Arg Leu Leu Asp Ile Ile Thr Glu Glu Gly Asn Ser Asp
 210 215 220
 Gly Gly Ile Val Val Glu Asp Cys Leu Ile Leu Leu Gln Asn Leu Leu
 225 230 235 240
 Lys Asn Asn Asn Ser Asn Gln Asn Phe Phe Lys Glu Gly Ser Tyr Ile
 245 250 255
 Gln Arg Met Lys Pro Trp Phe Glu Val Gly Asp Glu Asn Ser Gly Trp
 260 265 270
 Ser Ala Gln Lys Val Thr Asn Leu His Leu Met Leu Gln Leu Val Arg
 275 280 285
 Val Leu Val Ser Pro Asn Asn Pro Pro Gly Ala Thr Ser Ser Cys Gln
 290 295 300
 Lys Ala Met Phe Gln Cys Gly Leu Leu Gln Gln Leu Cys Thr Ile Leu
 305 310 315 320
 Met Ala Thr Gly Val Pro Ala Asp Ile Leu Thr Glu Thr Ile Asn Thr
 325 330 335
 Val Ser Glu Val Ile Arg Gly Cys Gln Val Asn Gln Asp Tyr Phe Ala
 340 345 350
 Ser Val Asn Ala Pro Ser Asn Pro Pro Arg Pro Ala Ile Val Val Leu
 355 360 365
 Leu Met Ser Met Val Asn Glu Arg Gln Pro Phe Val Leu Arg Cys Ala
 370 375 380
 Val Leu Tyr Cys Phe Gln Cys Phe Leu Tyr Lys Asn Gln Lys Gly Gln
 385 390 395 400
 Gly Glu Ile Val Ser Thr Leu Leu Pro Ser Thr Ile Asp Ala Thr Gly
 405 410 415
 Asn Thr Val Ser Ala Gly Gln Leu Leu Cys Gly Gly Leu Phe Ser Thr
 420 425 430
 Asp Ser Leu Ser Asn Trp Cys Ala Ala Val Ala Leu Ala His Ala Leu
 435 440 445
 Gln Glu Asn Ala Thr Gln Lys Glu Gln Leu Leu Arg Val Gln Leu Ala
 450 455 460
 Thr Ser Ile Gly Asn Pro Pro Val Ser Leu Leu Gln Gln Cys Thr Asn
 465 470 475 480
 Ile Leu Ser Gln Gly Ser Lys Ile Gln Thr Arg Val Gly Leu Leu Met

	485	490	495												
Leu	Leu	Cys	Thr	Trp	Leu	Ser	Asn	Cys	Pro	Ile	Ala	Val	Thr	His	Phe
				500				505					510		
Leu	His	Asn	Ser	Ala	Asn	Val	Pro	Phe	Leu	Thr	Gly	Gln	Ile	Ala	Glu
				515				520				525			
Asn	Leu	Gly	Glu	Glu	Glu	Gln	Leu	Val	Gln	Gly	Leu	Cys	Ala	Leu	Leu
				530				535			540				
Leu	Gly	Ile	Ser	Ile	Tyr	Phe	Asn	Asp	Asn	Ser	Leu	Glu	Thr	Tyr	Met
				545				550			555			560	
Lys	Glu	Lys	Leu	Lys	Gln	Leu	Ile	Glu	Lys	Arg	Ile	Gly	Lys	Glu	Asn
				565				570			575				
Phe	Ile	Glu	Lys	Leu	Gly	Phe	Ile	Ser	Lys	His	Glu	Leu	Tyr	Ser	Arg
				580				585			590				
Ala	Ser	Gln	Lys	Pro	Gln	Pro	Asn	Phe	Pro	Ser	Pro	Glu	Tyr	Met	Ile
				595				600			605				
Phe	Asp	His	Glu	Phe	Thr	Lys	Leu	Val	Lys	Glu	Leu	Glu	Gly	Val	Ile
				610				615			620				
Thr	Lys	Ala	Ile	Tyr	Lys	Ser	Ser	Glu	Glu	Asp	Lys	Lys	Glu	Glu	Glu
				625				630			635			640	
Val	Lys	Lys	Thr	Leu	Glu	Gln	His	Asp	Ser	Ile	Val	Thr	His	Tyr	Lys
				645				650			655				
Asn	Met	Ile	Arg	Glu	Gln	Asp	Leu	Gln	Leu	Glu	Glu	Leu	Lys	Gln	Gln
				660				665			670				
Ile	Ser	Thr	Leu	Lys	Cys	Gln	Asn	Glu	Gln	Leu	Gln	Thr	Ala	Val	Thr
				675				680			685				
Gln	Gln	Val	Ser	Gln	Ile	Gln	Gln	His	Lys	Asp	Gln	Tyr	Asn	Leu	Leu
				690				695			700				
Lys	Val	Gln	Leu	Gly	Lys	Asp	Ser	Gln	His	Gln	Gly	Pro	Tyr	Thr	Asp
				705				710			715			720	
Gly	Ala	Gln	Met	Asn	Gly	Val	Gln	Pro	Glu	Glu	Ile	Ser	Arg	Leu	Arg
				725				730			735				
Glu	Glu	Ile	Glu	Glu	Leu	Lys	Ser	Asn	Arg	Glu	Leu	Leu	Gln	Ser	Gln
				740				745			750				
Leu	Ala	Glu	Lys	Asp	Ser	Leu	Ile	Glu	Asn	Leu	Lys	Ser	Ser	Gln	Leu
				755				760			765				
Ser	Pro	Gly	Thr	Asn	Glu	Gln	Ser	Ser	Ala	Thr	Ala	Gly	Asp	Ser	Glu
				770				775			780				
Gln	Ile	Ala	Glu	Leu	Lys	Gln	Glu	Leu	Ala	Thr	Leu	Lys	Ser	Gln	Leu
				785				790			795			800	
Asn	Ser	Gln	Ser	Val	Glu	Ile	Thr	Lys	Leu	Gln	Thr	Glu	Lys	Gln	Glu
				805				810			815				
Leu	Leu	Gln	Lys	Thr	Glu	Ala	Phe	Ala	Lys	Ser	Ala	Pro	Val	Pro	Gly
				820				825			830				
Glu	Ser	Glu	Thr	Val	Ile	Ala	Thr	Lys	Thr	Thr	Asp	Val	Glu	Gly	Arg
				835				840			845				
Leu	Ser	Ala	Leu	Leu	Gln	Glu	Thr	Lys	Glu	Leu	Lys	Asn	Glu	Ile	Lys
				850				855			860				
Ala	Leu	Ser	Glu	Glu	Arg	Thr	Ala	Ile	Lys	Glu	Gln	Leu	Asp	Ser	Ser
				865				870			875			880	
Asn	Ser	Thr	Ile	Ala	Ile	Leu	Gln	Asn	Glu	Lys	Asn	Lys	Leu	Glu	Val
				885				890			895				
Asp	Ile	Thr	Asp	Ser	Lys	Lys	Glu	Gln	Asp	Asp	Leu	Leu	Val	Leu	Leu
				900				905			910				
Ala	Asp	Gln	Asp	Gln	Lys	Ile	Phe	Ser	Leu	Lys	Asn	Lys	Leu	Lys	Glu
				915				920			925				
Leu	Gly	His	Pro	Val	Glu	Glu	Glu	Asp	Glu	Leu	Glu	Ser	Gly	Asp	Gln
				930				935			940				
Asp	Asp	Glu	Asp	Asp	Glu	Asp	Glu	Asp	Asp	Gly	Lys	Glu	Gln	Gly	His
				945				950			955			960	
Ile															

<210> 67
 <211> 959
 <212> PRT
 <213> Rattus norvegicus

<400> 67
 Met Asn Phe Leu Arg Gly Val Met Gly Gly Gln Ser Ala Gly Pro Gln
 1 5 10 15
 His Thr Glu Ala Glu Thr Ile Gln Lys Leu Cys Asp Arg Val Ala Ser
 20 25 30
 Ser Thr Leu Leu Asp Asp Arg Arg Asn Ala Val Arg Ala Leu Lys Ser
 35 40 45
 Leu Ser Lys Lys Tyr Arg Leu Glu Val Gly Ile Gln Ala Met Glu His
 50 55 60
 Leu Ile His Val Leu Gln Thr Asp Arg Ser Asp Ser Glu Ile Ile Ala
 65 70 75 80
 Tyr Ala Leu Asp Thr Leu Tyr Asn Ile Ile Ser Asn Asp Glu Glu Glu
 85 90 95
 Glu Val Glu Glu Asn Ser Thr Arg Gln Ser Glu Asp Leu Gly Ser Gln
 100 105 110
 Phe Thr Glu Ile Phe Ile Lys Gln Pro Glu Asn Val Thr Leu Leu Leu
 115 120 125
 Ser Leu Leu Glu Glu Phe Asp Phe His Val Arg Trp Pro Gly Val Arg
 130 135 140
 Leu Leu Thr Ser Leu Leu Lys Gln Leu Gly Pro Pro Val Gln Gln Ile
 145 150 155 160
 Ile Leu Val Ser Pro Met Gly Val Ser Lys Leu Met Asp Leu Leu Ala
 165 170 175
 Asp Ser Arg Glu Ile Ile Arg Asn Asp Gly Val Leu Leu Leu Gln Ala
 180 185 190
 Leu Thr Arg Ser Asn Gly Ala Ile Gln Lys Ile Val Ala Phe Glu Asn
 195 200 205
 Ala Phe Glu Arg Leu Leu Asp Ile Ile Thr Glu Glu Gly Asn Ser Asp
 210 215 220
 Gly Gly Ile Val Val Glu Asp Cys Leu Ile Leu Leu Gln Asn Leu Leu
 225 230 235 240
 Lys Asn Asn Asn Ser Asn Gln Asn Phe Phe Lys Glu Gly Ser Tyr Ile
 245 250 255
 Gln Arg Met Lys Ala Trp Phe Glu Val Gly Asp Glu Asn Pro Gly Trp
 260 265 270
 Ser Ala Gln Lys Val Thr Asn Leu His Leu Met Leu Gln Leu Val Arg
 275 280 285
 Val Leu Val Ser Pro Thr Asn Pro Pro Gly Ala Thr Ser Ser Cys Gln
 290 295 300
 Lys Ala Met Phe Gln Cys Gly Leu Leu Gln Gln Leu Cys Thr Ile Leu
 305 310 315 320
 Met Ala Thr Gly Ile Pro Ala Asp Ile Leu Thr Glu Thr Ile Asn Thr
 325 330 335
 Val Ser Glu Val Ile Arg Gly Cys Gln Val Asn Gln Asp Tyr Phe Ala
 340 345 350
 Ser Val Asn Ala Pro Ser Asn Pro Pro Arg Pro Ala Ile Val Val Leu
 355 360 365
 Leu Met Ser Met Val Asn Glu Arg Gln Pro Phe Val Leu Arg Cys Ala
 370 375 380
 Val Leu Tyr Cys Phe Gln Cys Phe Leu Tyr Lys Asn Glu Lys Gly Gln
 385 390 395 400
 Gly Glu Ile Val Ala Thr Leu Leu Pro Ser Thr Ile Asp Ala Thr Gly
 405 410 415
 Asn Ser Val Ser Ala Gly Gln Leu Leu Cys Gly Gly Leu Phe Ser Thr
 420 425 430
 Asp Ser Leu Ser Asn Trp Cys Ala Ala Val Ala Leu Ala His Ala Leu
 435 440 445

Gln Gly Asn Ala Thr Gln Lys Glu Gln Leu Leu Arg Val Gln Leu Ala
 450 455 460
 Thr Ser Ile Gly Asn Pro Pro Val Ser Leu Leu Gln Gln Cys Thr Asn
 465 470 475 480
 Ile Leu Ser Gln Gly Ser Lys Ile Gln Thr Arg Val Gly Leu Leu Met
 485 490 495
 Leu Leu Cys Thr Trp Leu Ser Asn Cys Pro Ile Ala Val Thr His Phe
 500 505 510
 Leu His Asn Ser Ala Asn Val Pro Phe Leu Thr Gly Gln Ile Ala Glu
 515 520 525
 Asn Leu Gly Glu Glu Gln Leu Val Gln Gly Leu Cys Ala Leu Leu
 530 535 540
 Leu Gly Ile Ser Ile Tyr Phe Asn Asp Asn Ser Leu Glu Asn Tyr Thr
 545 550 555 560
 Lys Glu Lys Leu Lys Gln Leu Ile Glu Lys Arg Ile Gly Lys Glu Asn
 565 570 575
 Tyr Ile Glu Lys Leu Gly Phe Ile Ser Lys His Glu Leu Tyr Ser Arg
 580 585 590
 Ala Ser Gln Lys Pro Gln Pro Asn Phe Pro Ser Pro Glu Tyr Met Ile
 595 600 605
 Phe Asp His Glu Phe Thr Lys Leu Val Lys Glu Leu Glu Gly Val Ile
 610 615 620
 Thr Lys Ala Ile Tyr Lys Ser Ser Glu Glu Asp Lys Lys Glu Glu Glu
 625 630 635 640
 Val Lys Lys Thr Leu Glu Gln His Asp Asn Ile Val Thr His Tyr Lys
 645 650 655
 Asn Met Ile Arg Glu Gln Asp Leu Gln Leu Glu Glu Leu Lys Gln Gln
 660 665 670
 Val Ser Thr Leu Lys Cys Gln Asn Glu Gln Leu Gln Thr Ala Val Thr
 675 680 685
 Gln Gln Ala Ser Gln Ile Gln Gln His Lys Asp Gln Tyr Asn Leu Leu
 690 695 700
 Lys Val Gln Leu Gly Lys Asp Asn His His Gln Gly Ser His Ser Asp
 705 710 715 720
 Gly Ala Gln Val Asn Gly Ile Gln Pro Glu Glu Ile Ser Arg Leu Arg
 725 730 735
 Glu Glu Ile Glu Glu Leu Arg Ser His Gln Val Leu Leu Gln Ser Gln
 740 745 750
 Leu Ala Glu Lys Asp Thr Val Ile Glu Asn Leu Arg Ser Ser Gln Val
 755 760 765
 Ser Gly Met Ser Glu Gln Ala Leu Ala Thr Cys Ser Pro Arg Asp Ala
 770 775 780
 Glu Gln Val Ala Glu Leu Lys Gln Glu Leu Ser Ala Leu Lys Ser Gln
 785 790 795 800
 Leu Cys Ser Gln Ser Leu Glu Ile Thr Arg Leu Gln Thr Glu Asn Ser
 805 810 815
 Glu Leu Gln Gln Arg Ala Glu Thr Leu Ala Lys Ser Val Pro Val Glu
 820 825 830
 Gly Glu Ser Glu Leu Val Thr Ala Ala Lys Thr Thr Asp Val Glu Gly
 835 840 845
 Arg Leu Ser Ala Leu Leu Gln Glu Thr Lys Glu Leu Lys Asn Glu Ile
 850 855 860
 Lys Ala Leu Ser Glu Glu Arg Thr Ala Ile Gln Lys Gln Leu Asp Ser
 865 870 875 880
 Ser Asn Ser Thr Ile Ala Ile Leu Gln Thr Glu Lys Asp Lys Leu Tyr
 885 890 895
 Leu Glu Val Thr Asp Ser Lys Lys Glu Gln Asp Asp Leu Leu Val Leu
 900 905 910
 Leu Ala Asp Gln Asp Gln Lys Ile Leu Ser Leu Lys Ser Lys Leu Lys
 915 920 925
 Asp Leu Gly His Pro Val Glu Glu Glu Asp Glu Ser Gly Asp Gln Glu
 930 935 940

Asp Asp Asp Asp Glu Leu Asp Asp Gly Asp Arg Asp Gln Asp Ile
945 950 955

<210> 68
<211> 1139
<212> PRT
<213> Caenorhabditis elegans

<400> 68
Met Ser Tyr Ser Asn Gly Asn Ile Asn Cys Asp Ile Met Pro Thr Ile
1 5 10 15
Ser Glu Asp Gly Val Asp Asn Gly Gly Pro Ile Asp Glu Pro Ser Asp
20 25 30
Arg Asp Asn Ile Glu Gln Leu Met Met Asn Met Leu Glu Asp Arg Asp
35 40 45
Lys Leu Gln Glu Gln Leu Glu Asn Tyr Lys Val Gln Leu Glu Asn Ala
50 55 60
Gly Leu Arg Thr Lys Glu Val Glu Lys Glu Arg Asp Met Met Lys Arg
65 70 75 80
Gln Phe Glu Val His Thr Gln Asn Leu Pro Gln Glu Leu Gln Thr Met
85 90 95
Thr Arg Glu Leu Cys Leu Leu Lys Glu Gln Leu Leu Glu Lys Asp Glu
100 105 110
Glu Ile Val Glu Leu Lys Ala Glu Arg Asn Asn Thr Arg Leu Leu Leu
115 120 125
Glu His Leu Glu Cys Leu Val Ser Arg His Glu Arg Ser Leu Arg Met
130 135 140
Thr Val Met Lys Arg Gln Ala Gln Asn His Ala Gly Val Ser Ser Glu
145 150 155 160
Val Glu Val Leu Lys Ala Leu Lys Ser Leu Phe Glu His His Lys Ala
165 170 175
Leu Asp Glu Lys Val Arg Glu Arg Leu Arg Val Ala Met Glu Arg Val
180 185 190
Ala Thr Leu Glu Glu Leu Ser Thr Lys Gly Asp Glu Asn Ser Ser
195 200 205
Leu Lys Ala Arg Ile Ala Thr Tyr Ala Ala Glu Ala Glu Glu Ala Met
210 215 220
Ala Ser Asn Ala Pro Ile Asn Gly Ser Ile Ser Ser Glu Ser Ala Asn
225 230 235 240
Arg Leu Ile Glu Met Gln Glu Ala Leu Glu Arg Met Lys Thr Glu Leu
245 250 255
Ala Asn Ser Leu Lys Gln Ser Thr Glu Ile Thr Thr Arg Asn Ala Glu
260 265 270
Leu Glu Asp Gln Leu Thr Glu Asp Ala Arg Glu Lys His Ala Ala Gln
275 280 285
Glu Ser Ile Val Arg Leu Lys Asn Gln Ile Cys Glu Leu Asp Ala Gln
290 295 300
Arg Thr Asp Gln Glu Thr Arg Ile Thr Thr Phe Glu Ser Arg Phe Leu
305 310 315 320
Thr Ala Gln Arg Glu Ser Thr Cys Ile Arg Asp Leu Asn Asp Lys Leu
325 330 335
Glu His Gln Leu Ala Asn Lys Asp Ala Ala Val Arg Leu Asn Glu Glu
340 345 350
Lys Val His Ser Leu Gln Glu Arg Leu Glu Leu Ala Glu Lys Gln Leu
355 360 365
Ala Gln Ser Leu Lys Lys Ala Glu Ser Leu Pro Ser Val Glu Ala Glu
370 375 380
Leu Gln Gln Arg Met Glu Ala Leu Thr Ala Ala Glu Gln Lys Ser Val
385 390 395 400
Ser Ala Glu Glu Arg Ile Gln Arg Leu Asp Arg Asn Ile Gln Glu Leu
405 410 415
Ser Ala Glu Leu Glu Arg Ala Val Gln Arg Glu Arg Met Asn Glu Glu

420	425	430
His Ser Gln Arg Leu Ser Ser Thr Val Asp Lys Leu Leu Ser Glu Ser		
435	440	445
Asn Asp Arg Leu Gln Leu His Leu Lys Glu Arg Met Gln Ala Leu Asp		
450	455	460
Asp Lys Asn Arg Leu Thr Gln Gln Leu Asp Gly Thr Lys Lys Ile Tyr		
465	470	475
Asp Gln Ala Glu Arg Ile Lys Asp Arg Leu Gln Arg Asp Asn Glu Ser		
485	490	495
Leu Arg Gln Glu Ile Glu Ala Leu Arg Gln Gln Leu Tyr Asn Ala Arg		
500	505	510
Thr Ala Gln Phe Gln Ser Arg Met His Ala Ile Pro Phe Thr His Ala		
515	520	525
Gln Asn Ile Val Gln Gln Gln Pro Gln Ala Ser Ile Ala Gln Gln Ser		
530	535	540
Ala Tyr Gln Met Tyr Lys Gln Gln Pro Ala Gln Gln Tyr Gln Thr Val		
545	550	555
Gly Met Arg Arg Pro Asn Lys Gly Arg Ile Ser Ala Leu Gln Asp Asp		
565	570	575
Pro Asn Lys Val Gln Thr Leu Asn Glu Gln Glu Trp Asp Arg Leu Gln		
580	585	590
Gln Ala His Val Leu Ala Asn Val Gln Gln Ala Phe Ser Ser Ser Pro		
595	600	605
Ser Leu Ala Asp Val Gly Gln Ser Thr Leu Pro Arg Pro Asn Thr Ala		
610	615	620
Val Gln His Gln Gln Asp Asp Met Met Asn Ser Gly Met Gly Met Pro		
625	630	635
Ser Gly Met Gln Gly Gly Met Gln Gly Gly Met Gly Gly Gln Asp		
645	650	655
Ala Gln Met Leu Ala Ser Met Leu Gln Asp Arg Leu Asp Ala Ile Asn		
660	665	670
Thr Glu Ile Arg Leu Ile Gln Gln Glu Lys His His Ala Glu Arg Val		
675	680	685
Ala Glu Gln Leu Glu Arg Ser Ser Arg Glu Phe Tyr Asp Asp Gln Gly		
690	695	700
Ile Ser Thr Arg Ser Ser Pro Arg Ala Ser Pro Gln Leu Asp Asn Met		
705	710	715
Arg Gln His Lys Tyr Asn Thr Leu Pro Ala Asn Val Ser Gly Asp Arg		
725	730	735
Arg Tyr Asp Ile Tyr Gly Asn Pro Gln Phe Val Asp Asp Arg Met Val		
740	745	750
Arg Asp Leu Asp Tyr Glu Pro Arg Arg Gly Tyr Asn Gln Phe Asp Glu		
755	760	765
Met Gln Tyr Glu Arg Asp Arg Met Ser Pro Ala Ser Ser Val Ala Ser		
770	775	780
Ser Thr Asp Gly Val Leu Gly Gly Lys Lys Lys Arg Ser Asn Ser Ser		
785	790	795
Ser Gly Leu Lys Thr Leu Gly Arg Phe Phe Asn Lys Lys Lys Asn Ser		
805	810	815
Ser Ser Asp Leu Phe Lys Arg Asn Gly Asp Tyr Ser Asp Gly Glu Gln		
820	825	830
Ser Gly Thr Glu Gly Asn Gln Lys Ala Asp Tyr Asp Arg Arg Lys Lys		
835	840	845
Lys Lys His Glu Leu Leu Glu Glu Ala Met Lys Ala Arg Thr Pro Phe		
850	855	860
Ala Leu Trp Asn Gly Pro Thr Val Val Ala Trp Leu Glu Leu Trp Val		
865	870	875
Gly Met Pro Ala Trp Tyr Val Ala Ala Cys Arg Ala Asn Val Lys Ser		
885	890	895
Gly Ala Ile Met Ser Ala Leu Ser Asp Gln Glu Ile Gln Lys Glu Ile		
900	905	910
Gly Ile Ser Asn Pro Leu His Arg Leu Lys Leu Arg Leu Ala Ile Gln		

915	920	925
Glu Met Val Ser Leu Thr Ser Pro Ser Ala Pro Arg Thr Ala Arg Leu		
930	935	940
Thr Leu Ala Phe Gly Asp Met Asn His Glu Tyr Ile Gly Asn Asp Trp		
945	950	955
Leu Pro Cys Leu Gly Leu Ala Gln Tyr Arg Ser Ala Phe Met Glu Cys		960
965	970	975
Leu Leu Asp Ala Arg Met Leu Glu His Leu Ser Lys Arg Asp Leu Arg		
980	985	990
Thr His Leu Arg Met Val Asp Thr Phe His Arg Thr Ser Leu Gln Tyr		
995	1000	1005
Gly Ile Met Cys Leu Lys Lys Val Asn Tyr Asp Lys Lys Val Leu Ala		
1010	1015	1020
Asp Arg Arg Lys Ala Cys Asp Asn Ile Asn Thr Asp Leu Leu Val Trp		
1025	1030	1035
Ser Asn Glu Arg Val Gln Arg Trp Val Glu Glu Ile Gly Leu Gly Val		1040
1045	1050	1055
Phe Ser Arg Asn Leu Val Asp Ser Gly Ile His Gly Ala Leu Ile Ala		
1060	1065	1070
Leu Asp Glu Thr Phe Asp Ala Ser Ala Phe Ala Tyr Ala Leu Gln Ile		
1075	1080	1085
Gly Ser Gln Asp Val Pro Asn Arg Gln Leu Leu Glu Lys Lys Phe Ile		
1090	1095	1100
Gly Leu Val Asn Asp His Arg Gln Gln Ser Asp Pro His Pro Arg Ser		
1105	1110	1115
Gly Ser Ser Arg Lys Asn Asp Ser Ile Ala Lys Ser Tyr Glu Phe His		1120
1125	1130	1135
Leu Tyr Thr		

<210> 69
<211> 950
<212> PRT
<213> Caenorhabditis elegans

<400> 69		
Met Tyr Ser Arg His Ser Ile Ser Asp Ala Tyr Gly Ala Val Cys Ile		
1	5	10
Leu Pro Glu Asp Thr Leu Thr Val Ser Ser Ser Gln Asn Ser His Ile		15
20	25	30
Asp Ala Phe Ala Ala Leu Val Asp Arg Glu Arg Asp Ser Ser Arg Ser		
35	40	45
Ser Gly Ser Gly Asn Ile Phe Lys Asp Asn Gly Ser Ile Lys Arg Arg		
50	55	60
Gln Ala Leu Pro Tyr Val Thr His Tyr Ser Asp Ser Gly Phe Gly Ser		
65	70	75
Ala Pro Ser Ala Gly Ser Ser Cys Ser Tyr Leu Pro Pro Pro Pro Pro		80
85	90	95
Tyr Arg Met Arg Gly Ser Gly Gly Leu Ser Ser Lys Pro Gln His Lys		
100	105	110
Ile His Arg Ser Leu Ser Asp Ser Lys Tyr Thr Ala Ser Leu Met Thr		
115	120	125
Thr Gly Val Pro Thr Leu Pro Leu Leu Ser Met Thr Pro Phe Asn Gln		
130	135	140
Leu Gln Ser Arg Asp Ala Arg Gly Ala Ser Trp Ile Ser Leu Val Arg		
145	150	155
Ala Pro Asn Phe His Leu Tyr Cys Phe Phe Val Phe Phe Ser Phe		160
165	170	175
Asn Ile Asp Glu Thr Phe Arg Asn Ser Asn Ile Ser Ser Pro Ser Pro		
180	185	190
Ser Met Ser Thr Val Ser Cys Pro Glu Tyr Pro Glu Leu Gln Asp Lys		
195	200	205

Leu His Arg Leu Ala Met Ala Arg Asp Ser Leu Gln Leu Gln Val Ser
 210 215 220
 Val Leu Ser Glu Gln Val Gly Ala Gln Lys Glu Lys Ile Lys Asp Leu
 225 230 235 240
 Glu Thr Val Ile Ala Leu Lys Arg Asn Asn Leu Thr Ser Thr Glu Glu
 245 250 255
 Leu Leu Gln Asp Lys Tyr His Arg Ile Asp Glu Cys Gln Glu Leu Glu
 260 265 270
 Ser Lys Lys Met Asp Leu Leu Ala Glu Val Ser Ser Leu Lys Leu Arg
 275 280 285
 Tyr Ala Thr Leu Glu Arg Glu Lys Asn Glu Thr Glu Lys Lys Leu Arg
 290 295 300
 Leu Ser Gln Asn Glu Met Asp His Val Asn Gln Ser Met His Gly Met
 305 310 315 320
 Val Val Gln Gln Gln Leu Ala His His Thr Asn Gly His Ser Ser Gly
 325 330 335
 Gly Tyr Met Ser Pro Leu Arg Glu His Arg Ser Glu Lys Asn Asp Asp
 340 345 350
 Glu Met Ser Gln Leu Arg Thr Ala Val Gln Arg Leu Met Ala Asp Asn
 355 360 365
 Glu His Lys Ser Leu Gln Ile Asn Thr Leu Arg Asn Ala Leu Asp Glu
 370 375 380
 Gln Met Arg Ser Arg Ser Gln Gln Glu Asp Phe Tyr Ala Ser Gln Arg
 385 390 395 400
 Asn Tyr Thr Asp Asn Phe Asp Val Asn Ala Gln Ile Arg Arg Ile Leu
 405 410 415
 Met Asp Glu Pro Ser Asp Ser Met Ser His Ser Thr Ser Phe Pro Val
 420 425 430
 Ser Leu Ser Ser Thr Thr Ser Asn Gly Lys Gly Pro Arg Ser Thr Val
 435 440 445
 Gln Ser Ser Ser Tyr Asn Ser Ser Leu Ser Ala Val Ser Pro Gln
 450 455 460
 His Asn Trp Ser Ser Ala Gly Ala Gly Thr Pro Arg Gln Leu His Pro
 465 470 475 480
 Ile Gly Gly Asn Gln Arg Val Asn Asn Ile Thr Ser Ala Gln Tyr Cys
 485 490 495
 Ser Pro Ser Pro Ala Ala Arg Gln Leu Ala Ala Glu Leu Asp Glu
 500 505 510
 Leu Arg Arg Asn Gly Asn Glu Gly Ala Asn His Asn Tyr Ser Ser Ala
 515 520 525
 Ser Leu Pro Arg Gly Val Gly Lys Ala Ser Ser Thr Leu Thr Leu Pro
 530 535 540
 Ser Lys Lys Leu Ser Val Ala Ser Gly Thr Ser Val Val Glu Ser Asp
 545 550 555 560
 Asp Glu Ile Ala Arg Gly Arg Asn Leu Asn Asn Ala Thr Ser Gln Ser
 565 570 575
 Asn Leu Lys Asn Phe Ser Arg Glu Arg Thr Arg Ser Ser Leu Arg Asn
 580 585 590
 Ile Phe Ser Lys Leu Thr Arg Ser Thr Ser Gln Asp Gln Ser Asn Ser
 595 600 605
 Phe Arg Arg Gly Ser Ala Ala Arg Ser Thr Ser Thr Ala Arg Leu Gly
 610 615 620
 Ser Thr Asn His Leu Gly Thr Val Ser Lys Arg Pro Pro Leu Ser Gln
 625 630 635 640
 Phe Val Asp Trp Arg Ser Glu Gln Leu Ala Asp Trp Ile Ala Glu Ile
 645 650 655
 Gly Tyr Pro Gln Tyr Met Asn Glu Val Ser Arg His Val Arg Ser Gly
 660 665 670
 Arg His Phe Leu Asn Met Ser Met Asn Glu Tyr Glu Gly Val Leu Asn
 675 680 685
 Ile Lys Asn Pro Val His Arg Lys Arg Val Ala Ile Leu Leu Arg Arg
 690 695 700

Ile Glu Glu Asp Ile Met Glu Pro Ala Asn Lys Trp Asp Val His Gln
 705 710 715 720
 Thr Leu Arg Trp Leu Asp Asp Ile Gly Leu Pro Gln Tyr Lys Asp Val
 725 730 735
 Phe Ala Glu Asn Val Val Asp Gly Pro Leu Leu Leu Ser Leu Thr Ala
 740 745 750
 Asn Asp Ala Val Glu Met Lys Val Val Asn Ala His His Tyr Ala Thr
 755 760 765
 Leu Ala Arg Ser Ile Gln Phe Leu Lys Lys Ala Asp Phe Arg Phe Asn
 770 775 780
 Ala Met Glu Lys Leu Ile Asp Gln Asn Ile Val Glu Lys Tyr Pro Cys
 785 790 795 800
 Pro Asp Val Val Val Arg Trp Thr His Ser Ala Thr Cys Glu Trp Leu
 805 810 815
 Arg Lys Ile Asp Leu Ala Glu Phe Thr Gln Asn Leu Leu Phe Ala Gly
 820 825 830
 Val Pro Gly Ala Leu Met Ile Tyr Glu Pro Ser Phe Thr Ala Glu Ser
 835 840 845
 Leu Ala Glu Ile Leu Gln Met Pro Pro His Lys Thr Leu Leu Arg Arg
 850 855 860
 His Leu Thr Ser His Phe Asn Gln Leu Leu Gly Pro Lys Ile Ile Ala
 865 870 875 880
 Asp Lys Arg Asp Phe Leu Ala Ala Gly Asn Tyr Pro Gln Ile Ser Pro
 885 890 895
 Thr Gly Arg Val Lys Val Val Lys Lys Gly Phe Ser Leu Thr Arg Lys
 900 905 910
 Lys Ala Lys Asn Glu Ile Cys Leu Glu Pro Glu Glu Leu Leu Cys Pro
 915 920 925
 Gln Val Leu Val His Lys Tyr Pro Thr Gly Ala Gly Asp Asn Ser Ser
 930 935 940
 Phe Glu Ser Ser Asn Val
 945 950

<210> 70

<211> 15

<212> PRT

<213> human rhinovirus 2

<400> 70

Val Lys Ala Glu Thr Arg Leu Asn Pro Asp Leu Gln Pro Thr Glu
 1 5 10 15

<210> 71

<211> 24

<212> PRT

<213> human immunodeficiency virus type 1

<220>

<221> VARIANT

<222> 14

<223> Xaa = Any Amino Acid

<400> 71

Tyr Asn Lys Arg Lys Arg Ile His Ile Gly Pro Gly Arg Xaa Phe Tyr
 1 5 10 15

Thr Thr Lys Asn Ile Ile Gly Cys
 20

<210> 72

<211> 8

<212> PRT

<213> Artificial Sequence

<220>
<223> selected from synthetic peptides derived from Homo sapiens CD52.

<400> 72
Gly Thr Ser Ser Pro Ser Ala Asp
1 5

<210> 73
<211> 10
<212> PRT
<213> Mesocricetus auratus

<400> 73
Ala Pro Lys Thr Asn Met Lys His Met Ala
1 5 10

<210> 74
<211> 15
<212> PRT
<213> Foot-and-mouth disease virus

<400> 74
Tyr Thr Thr Ser Thr Arg Gly Asp Leu Ala His Val Thr Thr Thr
1 5 10 15

<210> 75
<211> 18
<212> PRT
<213> Human poliovirus 1 Mahoney

<400> 75
Cys Val Thr Ile Met Thr Val Asp Asn Pro Ala Ser Thr Thr Asn Lys
1 5 10 15
Asp Lys

<210> 76

<400> 76
000

<210> 77
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Derived from Homo sapiens MUC1 epithelial mucin glycoprotein.

<400> 77
Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
1 5 10

<210> 78
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Derived from human immunodeficiency virus 1 gp 120 protein.

<400> 78

His Ile Gly Pro Gly Arg Ala Phe Gly Gly Gly
1 5 10

<210> 79
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Derived from human immunodeficiency virus 1 protease protein.

<400> 79
Met Ser Leu Pro Gly Arg Trp Lys Pro Lys
1 5 10

<210> 80
<211> 7
<212> PRT
<213> Neisseria meningitidis

<400> 80
Lys Asp Thr Asn Asn Asn Leu
1 5

<210> 81
<211> 18
<212> PRT
<213> Escherichia coli

<400> 81
Ala Val Pro Gln Gly Gln Gly Lys Val Thr Phe Ser Gly Thr Val Val
1 5 10 15
Asp Ala

<210> 82
<211> 53
<212> PRT
<213> Escherichia coli

<400> 82
Pro Cys Gly Ile Asp Ala Ala Gln Ser Ala Asp Gln Ser Val Asp Phe
1 5 10 15
Gly Gln Ile Ser Lys Val Phe Leu Asp Asn Asp Gly Gln Thr Thr Pro
20 25 30
Lys Ala Phe Asp Ile Lys Leu Val Asn Cys Asp Ile Thr Asn Tyr Lys
35 40 45
Lys Pro Ala Thr Gly
50

<210> 83
<211> 33
<212> PRT
<213> Escherichia coli

<400> 83
Met Ile Lys Ser Thr Gly Ala Leu Leu Leu Phe Ala Ala Leu Ser Ala
1 5 10 15
Gly Gln Ala Ile Ala Ser Asp Val Ala Phe Arg Gly Asn Leu Leu Asp
20 25 30
Arg

<210> 84
<211> 37
<212> PRT
<213> Escherichia coli

<400> 84
Pro Cys His Val Ser Gly Asp Ser Leu Asn Lys His Val Val Phe Lys
1 5 10 15
Thr Arg Ala Ser Arg Asp Phe Trp Tyr Pro Pro Gly Arg Ser Pro Thr
20 25 30
Glu Ser Phe Val Ile
35

<210> 85
<211> 55
<212> PRT
<213> Escherichia coli

<400> 85
Met Arg Leu Arg Phe Ser Val Pro Leu Phe Phe Gly Cys Val Phe
1 5 10 15
Val His Gly Val Phe Ala Gly Pro Phe Pro Pro Gly Met Ser Leu
20 25 30
Pro Glu Tyr Trp Gly Glu Glu His Val Trp Trp Asp Gly Arg Ala Ala
35 40 45
Phe His Gly Glu Val Val Arg
50 55

<210> 86
<211> 15
<212> PRT
<213> Escherichia coli

<400> 86
Pro Ala Cys Thr Leu Ala Met Glu Asp Ala Trp Gln Ile Ile Asp
1 5 10 15

<210> 87
<211> 36
<212> PRT
<213> Escherichia coli

<400> 87
Met Lys Lys Ile Arg Gly Leu Cys Leu Pro Val Met Leu Gly Ala Val
1 5 10 15
Leu Met Ser Gln His Val His Ala Ala Asp Asn Leu Thr Phe Lys Gly
20 25 30
Lys Leu Ile Ile
35

<210> 88
<211> 34
<212> PRT
<213> Escherichia coli

<400> 88
Pro Ala Cys Thr Val Thr Lys Ala Glu Val Asp Trp Gly Asn Val Glu
1 5 10 15
Ile Gln Thr Leu Ser Pro Asp Gly Ser Arg His Gln Lys Asp Phe Ser
20 25 30
Val Gly

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<210> 89
<211> 31
<212> PRT
<213> Escherichia coli

<400> 89
Met Ala Arg Leu Ser Leu Phe Ile Ser Leu Leu Leu Thr Ser Val Ala
   1           5           10          15
Val Leu Ala Asp Val Gln Ile Asn Ile Arg Gly Asn Val Tyr Ile
   20          25          30

<210> 90
<211> 39
<212> PRT
<213> Escherichia coli

<400> 90
Pro Pro Cys Thr Ile Asn Asn Gly Gln Asn Ile Val Val Asp Phe Gly
   1           5           10          15
Asn Ile Asn Pro Glu His Val Asp Asn Ser Arg Gly Glu Ile Thr Lys
   20          25          30
Thr Ile Ser Ile Ser Cys Thr
   35

<210> 91
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Theoretical sequence designed to show proper and improper joining
elements

<400> 91
ggggggggggg                                     10

<210> 92
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Theoretical sequence designed to show proper and improper joining
elements

<400> 92
cccccccccc                                     10

<210> 93
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Theoretical sequence designed to show proper and improper joining
elements

<400> 93
aaaaaaaaaaa                                     10

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elements

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<220>
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<222> 8, 9, 10, 11
<223> n = residue with no base, essentially glycines that allow the DNA to
fold back on itself to form the triple helix

<400> 143
cccccccn nn nccccccc 18

<210> 144
<211> 7
<212> DNA
<213> Artificial Sequence

<220>
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elements

<400> 144
gggggggg 7

<210> 145
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elements

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<220>
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<222> 8, 9, 10, 11
<223> n = residue with no base, essentially glycines that allow the DNA to
fold back on itself to form the triple helix

<400> 145
ccctttnnn nttttccc                                         18

<210> 146
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<220>
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elements

<400> 146
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<210> 147
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<222> 8, 9, 10, 11
<223> n = residue with no base, essentially glycines that allow the DNA to
fold back on itself to form the triple helix

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<210> 148
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<220>
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elements

<400> 148
agagaga                                                       7

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elements

<220>
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<222> 8, 9, 10, 11		
<223> n = residue with no base, essentially glycines that allow the DNA to fold back on itself to form the triple helix		
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<223> Theoretical sequence designed to show proper and improper joining elements
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 ataaacctgac 10
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 gggtttccc 10
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 gatcttgatc 10
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 <211> 6
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 <213> Escherichia coli
 <400> 157
 Asn Lys Gly Gln Gly Glu
 1 5
 <210> 158
 <211> 14
 <212> PRT
 <213> Homo sapiens
 <400> 158
 Ser Gly Phe Asn Ala Asp Tyr Glu Ala Ser Ser Ser Arg Cys
 1 5 10
 <210> 159
 <211> 17
 <212> PRT
 <213> Avian sarcoma virus 17
 <400> 159
 Pro Ile Asp Met Glu Ser Gln Glu Arg Ile Lys Ala Glu Arg Lys Arg
 1 5 10 15
 Met
 <210> 160
 <211> 10
 <212> PRT

<213> Homo sapiens

<400> 160
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 161
<211> 15
<212> PRT
<213> Murine sarcoma virus

<400> 161
Glu Glu Tyr Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu
1 5 10 15

<210> 162
<211> 11
<212> PRT
<213> Human herpes virus type 1

<400> 162
Gln Pro Glu Leu Ala Pro Glu Asp Pro Glu Asp
1 5 10

<210> 163
<211> 11
<212> PRT
<213> Enterobacteria phage T7

<400> 163
Met Ala Ser Met Thr Gly Gly Gln Gln Met Gly
1 5 10

<210> 164
<211> 5
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<213> Artificial Sequence

<220>
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<400> 164
Tyr Gly Gly Phe Leu
1 5

<210> 165
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Identified from M13 bacteriophage peptide display library.

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Ile Ser Phe Glu Asn Thr Trp Leu Trp His Pro Gln Phe Ser Ser
1 5 10 15

<210> 166
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<212> PRT
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<220>
<223> Identified from non-biological peptide library.

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Thr Pro His Pro Gln
1 5

<210> 167
<211> 5
<212> PRT
<213> Artificial

<220>
<223> Identified from non-biological peptide library.

<400> 167
Met His Pro Met Ala
1 5

<210> 168
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Derived from S-peptide fragment of ribonuclease A protein, probably from Bos taurus.

<400> 168
Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln His Met Asp Ser
1 5 10 15

<210> 169
<211> 5
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<220>
<223> Derived from a consensus recognition sequence of cAMP-dependent protein kinase (protein kinase A).

<400> 169
Arg Arg Ala Ser Val
1 5

<210> 170
<211> 12
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<220>
<223> Identified from M13 bacteriophage peptide display library.

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Val Thr Ser Pro Asp Ser Thr Thr Gly Ala Met Ala
1 5 10

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Ala Ala Ser Pro Thr Gln Ser Met Ser Gln Ala Pro
1 5 10

<210> 172
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Ala Gln Asn Pro Ser Asp Asn Asn Thr His Thr His
1 5 10

<210> 173
<211> 12
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<220>
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<400> 173
Ala Ser Ser Ser Arg Ser His Phe Gly Gln Thr Asp
1 5 10

<210> 174
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<220>
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1 5 10

<210> 175
<211> 12
<212> PRT
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<220>
<223> Identified from M13 bacteriophage peptide display library.

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Ala Arg Tyr Asp Leu Ser Ile Pro Ser Ser Glu Ser
1 5 10

<210> 176
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Identified from M13 bacteriophage peptide display library.

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<400> 176
Thr Pro Pro Arg Pro Ile Gln Tyr Asn His Thr Ser
1 5 10

<210> 177
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Identified from M13 bacteriophage peptide display library.

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Ser Ser Leu Gln Leu Pro Glu Asn Ser Phe Pro His
1 5 10

<210> 178
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Identified from M13 bacteriophage peptide display library.

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Gly Thr Leu Ala Asn Gln Gln Ile Phe Leu Ser Ser
1 5 10

<210> 179
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<212> PRT
<213> Artificial

<220>
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<400> 179
His Gly Asn Pro Leu Pro Met Thr Pro Phe Pro Gly
1 5 10

<210> 180
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Identified from M13 bacteriophage peptide display library.

<400> 180
Arg Leu Glu Leu Ala Ile Pro Leu Gln Gly Ser Gly
1 5 10